[MS-WSSCAML]:
Collaborative Application Markup Language (CAML) Structure

Revision Summary

Date	Revision History	Revision Class	Comments
04/04/2008	0.1		Initial Availability
06/27/2008	1.0	Major	Revised and edited the technical content
12/12/2008	1.01	Editorial	Revised and edited the technical content
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08/28/2009	1.03	Editorial	Revised and edited the technical content
11/06/2009	1.04	Editorial	Revised and edited the technical content
02/19/2010	2.0	Major	Updated and revised the technical content
03/31/2010	2.01	Editorial	Revised and edited the technical content
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06/07/2010	2.03	Editorial	Revised and edited the technical content
06/29/2010	2.04	Editorial	Changed language and formatting in the technical content.
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09/12/2012	3.0	No change	No changes to the meaning, language, or formatting of the technical content.
10/08/2012	3.1	Minor	Clarified the meaning of the technical content.

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Date	Revision History	Revision Class	Comments
02/11/2013	4.0	Major	Significantly changed the technical content.
07/30/2013	4.1	Minor	Clarified the meaning of the technical content.
11/18/2013	4.1	No change	No changes to the meaning, language, or formatting of the technical content.
02/10/2014	4.1	No change	No changes to the meaning, language, or formatting of the technical content.
04/30/2014	4.2	Minor	Clarified the meaning of the technical content.
07/31/2014	4.3	Minor	Clarified the meaning of the technical content.

Table of Contents

1   Introduction

The Collaborative Application Markup Language (CAML) structure consists of XML-based formats for queries, lists, and content types in Windows SharePoint Services, as used by other protocols.

Sections 1.7 and 2 of this specification are normative and contain RFC 2119 language. All other sections and examples in this specification are informative.

1.1   Glossary

The following terms are defined in [MS-GLOS]:

GUID

The following terms are defined in [MS-OFCGLOS]:

after event
assembly
audit log
base view
before event
Boolean
cascading style sheet (CSS)
class name
composite field index
computed field
content type
content type group
current user
discussion board
document
Document Information Panel
document library
document template
event handler
event receiver
feature
field
field definition
field internal name
file extension
FilterDescriptor
Finder
font
form
form template
friendly name
front-end web server
fully qualified class name
group
item
item identifier
list
list form
list item

list template
lookup field
major version
mobile device
moderated list
paged view
policy
publishing level
query
record
recurrence exception
resource folder
RSS item
security scope
server-relative URL
site
site collection
strong name
survey list
toolbar
top-level site
Uniform Resource Locator (URL)
Uniform Resource Name (URN)
view
Web Part
Web Part zone
workflow
XML namespace prefix

The following terms are specific to this document:

control template: A fragment of HTML and ASP.NET markup that customizes and extends the functionality of an ASP.NET control.

document property: A name/value pair that serves as metadata for a document.

policy feature: A type of rule that can be used within a policy to govern interactions with an object such as a document or item.

retention action: An action that occurs on an object, such as a document or site, in response to an event defined by a retention formula in a larger retention policy. Examples of retention actions are delete, move to a different location, and delete previous versions.

retention formula: A logical equation or function that is used to calculate when a retention action occurs on an object, such as a document or content type, as defined by a larger retention policy that applies to that object.

retention schedule: A sequence of stages that defines the retention lifecycle of an object such as a document, list item, list, content type, or site. Each stage consists of an event/action pair that specifies what action to perform on an object before or after that stage.

retention stage: One of a sequence of phases in a retention policy that defines the retention lifecycle of an object such as a document, list item, list, content type, or site. Each stage consists of an event/action pair that specifies what action to perform on an object before or after that stage.

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as described in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

References to Microsoft Open Specification documents do not include a publishing year because links are to the latest version of the documents, which are updated frequently. References to other documents include a publishing year when one is available.

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[MS-WSSCAP] Microsoft Corporation, "Windows SharePoint Services Collaborative Application Protocol".

[MS-WSSFO2] Microsoft Corporation, "Windows SharePoint Services (WSS): File Operations Database Communications Version 2 Protocol".

[MS-WSSFO3] Microsoft Corporation, "Windows SharePoint Services (WSS): File Operations Database Communications Version 3 Protocol".

[MS-WSSTS] Microsoft Corporation, "Windows SharePoint Services".

[RFC1808] Fielding, R., "Relative Uniform Resource Locators", RFC 1808, June 1995, http://www.rfc-editor.org/rfc/rfc1808.txt

[RFC2068] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2068, January 1997, http://www.ietf.org/rfc/rfc2068.txt

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.rfc-editor.org/rfc/rfc2119.txt

[RFC2234] Crocker, D., and Overell, P., "Augmented BNF for Syntax Specifications: ABNF", RFC 2234, November 1997, http://www.ietf.org/rfc/rfc2234.txt

[RFC3339] Klyne, G., and Newman, C., "Date and Time on the Internet: Timestamps", RFC 3339, July 2002, http://www.ietf.org/rfc/rfc3339.txt

[RSS2.0] Winer, D., "RSS 2.0 Specification", Fall 2002, version 2.0.1: July 2003, http://cyber.law.harvard.edu/rss/rss.html

[XML] World Wide Web Consortium, "Extensible Markup Language (XML) 1.0 (Fourth Edition)", W3C Recommendation, August 2006, http://www.w3.org/TR/2006/REC-xml-20060816/

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, http://www.w3.org/TR/2009/REC-xml-names-20091208/

[XMLSCHEMA1] Thompson, H.S., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

[XMLSCHEMA2] Biron, P.V., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/

1.2.2 Informative References

[MSDN-SHPTSDK] Microsoft Corporation, "Windows SharePoint Services 3.0 SDK", http://msdn.microsoft.com/en-us/library/ms441339.aspx

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary".

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary".

1.3 Overview

This document specifies canonical XML definitions of components that are frequently used in communications between protocol clients and protocol servers. Such components include **lists**, **content types**, **queries**, and so on.

1.4 Relationship to Protocols and Other Structures

This structure specifies XML schemas, as specified in [XMLSCHEMA1] and [XMLSCHEMA2], for data structures that are based on structures further described in [MS-WSSTS].

1.5 Applicability Statement

None.

1.6 Versioning and Localization

None.

1.7 Vendor-Extensible Fields

For complex types defined in this document, an implementation of protocol servers can optionally support reading, writing, and persisting additional arbitrary elements or attributes. Unless otherwise specified in the underlying schema definition, this capability is not to be used by vendors or by protocol server implementations to provide extensions to the schema specified in this document.

Several elements of the XML, as specified in [XML], formats that are specified in this document are designed for additional customization and extensibility.

1.7.1 XmlDocuments on ContentTypeDefinition Type

The **ContentTypeDefinition** complex type, which is specified in **ContentTypeDefinition** (section 2.4.1), can contain child **XmlDocumentDefinition** elements. Each **XmlDocument** element is identified by a unique namespace URI. Vendors can define additional **XmlDocument** elements with unique namespace URIs, and readers and writers persist these **XmlDocument** elements.

1.7.2 PolicyItem

The **PolicyItem** element, as specified in **PolicyItem Type** (section 2.5.1.10), contains the settings for a **policy feature**. These settings include information that is required for all policy features, such as the identifier and name. This element is vendor-extensible through its **CustomData** child element.

In addition to vendor-extensible schemas, there are well known schema types specified in **PolicyItem Type Child Elements** (section 2.5.1.10.3). One of these well known schemas is for the retention policy feature also has vendor-extensible fields for controlling the **retention formula** or

retention action, as specified in **PolicyDataDefinition** Type (section 2.5.1.18) and **Schedules Type** (section 2.5.1.16).

2 Structures

2.1 Common Simple Types

2.1.1 AssemblyClass

This type specifies a **fully qualified class name** of a code-based implementation. This type is defined as follows:

```
<xs:simpleType name="AssemblyClass">
  <xs:restriction base="xs:string">
    <xs:maxLength value="255" />
  </xs:restriction>
</xs:simpleType>
```

2.1.2 AssemblyStrongName

This type specifies a **strong name** of a code-based implementation. This type is defined as follows:

```
<xs:simpleType name="AssemblyStrongName">
  <xs:restriction base="xs:string">
    <xs:maxLength value="255" />
  </xs:restriction>
</xs:simpleType>
```

2.1.3 FALSE_Case_Insensitive_Else_Anything

This type specifies a **Boolean** value. For more details, see [MS-WSSFO2] section 2.2.8.2.1.

2.1.4 IntNonNegative

This type specifies a non-negative integer. This type is defined as follows:

```
<xs:simpleType name="IntNonNegative">
  <xs:restriction base="xs:int">
    <xs:minInclusive value="0" />
  </xs:restriction>
</xs:simpleType>
```

2.1.5 RelativeFilePath

This type specifies the location of a template file stored on the physical disk of the **front-end Web server**. This type is defined as follows:

```
<xs:simpleType name="RelativeFilePath">
  <xs:restriction base="xs:string" >
    <xs:minLength value="0" />
  </xs:restriction>
</xs:simpleType>
```

2.1.6 RelativeUrl

This type specifies a relative **URL** [RFC1808] relative to a **site (2)**. This type is defined as follows:

```
<xs:simpleType name="RelativeUrl">
  <xs:restriction base="xs:string" >
    <xs:maxLength value="255" />
    <xs:minLength value="0" />
  </xs:restriction>
</xs:simpleType>
```

2.1.7 String255Chars

This type specifies a string with a length in the range from zero through 255 characters. This type is defined as follows:

```
<xs:simpleType name="String255Chars">
  <xs:restriction base="xs:string">
    <xs:maxLength value="255" />
    <xs:minLength value="0" />
  </xs:restriction>
</xs:simpleType>
```

2.1.8 TRUE_Case_Insensitive_Else_Anything

This type specifies a Boolean value. This type is defined as follows:

```
<xs:simpleType name="TRUE_Case_Insensitive_Else_Anything">
  <xs:restriction base="xs:string">
    <xs:pattern value="([Tt][Rr][Uu][Ee])|.*" />
  </xs:restriction>
</xs:simpleType>
```

2.1.9 TRUE_Case_Sensitive_Else_Anything

This type specifies a Boolean value. For more details, see [MS-WSSFO2], section 2.2.8.2.12.

2.1.10 TRUE_If_Present

This type specifies a Boolean value. For more details, see [MS-WSSFO2] section 2.2.8.2.10.

2.1.11 TRUE_NegOne_Else_Anything

This type specifies a Boolean value. This type is defined as follows:

```
<xs:simpleType name="TRUE_NegOne_Else_Anything">
  <xs:restriction base="xs:string">
    <xs:pattern value="(TRUE)|(\-1)|.*" />
  </xs:restriction>
</xs:simpleType>
```

2.1.12 TRUEFALSE

This type specifies a Boolean value. For more details, see [MS-WSSFO2] section 2.2.8.2.11.

2.1.13 truefalse_Only_Lowercase

This type specifies a Boolean value. This type is defined as follows:

```
<xs:simpleType name="truefalse_Only_Lowercase">
  <xs:restriction base="xs:boolean">
    <xs:pattern value="true|false"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.14 UniqueIdentifierWithoutBracesOrEmpty

This type specifies a **GUID**. This type is defined as follows:

```
<xs:simpleType name="UniqueIdentifierWithoutBracesOrEmpty">
  <xs:restriction base="xs:string">
    <xs:pattern value="[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-
9a-fA-F]{12}|"/>
    <xs:minLength value="0"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.15 UniqueIdentifierWithoutBraces

This type specifies a GUID. This type is defined as follows:

```
<xs:simpleType name="UniqueIdentifierWithoutBraces">
  <xs:restriction base="UniqueIdentifierWithoutBracesOrEmpty">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.16 UniqueIdentifierWithBraces

This type specifies a GUID. This type is defined as follows:

```
<xs:simpleType name="UniqueIdentifierWithBraces">
  <xs:restriction base="xs:string">
    <xs:pattern value="\{[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-
[0-9a-fA-F]{12}\}"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.17 UniqueIdentifierWithBracesOrEmpty

This type<1> specifies a GUID. This type is defined as follows:

```
<xs:simpleType name="UniqueIdentifierWithBracesOrEmpty">
```

```
    <xs:restriction base="xs:string">
      <xs:pattern value="\{[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-
[0-9a-fA-F]{12}\}|"/>
    </xs:restriction>
  </xs:simpleType>
```

2.1.18 UniqueIdentifierWithOrWithoutBraces

This type specifies a GUID. For more details, see [MS-WSSFO2] section 2.2.8.2.14.

2.1.19 UniqueIdentifierWithOrWithoutBracesWithOrWithoutDashes

This type specifies a GUID. This type is defined as follows:

```
    <xs:simpleType name="UniqueIdentifierWithOrWithoutBracesWithOrWithoutDashes">
      <xs:restriction base="xs:string">
        <xs:pattern value="\{?[0-9a-fA-F]{8}\-?[0-9a-fA-F]{4}\-?[0-9a-fA-F]{4}\-?[0-9a-fA-
F]{4}\-?[0-9a-fA-F]{12}\}?"/>
      </xs:restriction>
    </xs:simpleType>
```

2.2 Query Types

A query specifies a set of restrictions and preferences for returning a set of **list items** from a larger collection of list items. For these types, a server processes a query and applies the specified criteria to return list items from a larger set of list items.

2.2.1 Simple Types

2.2.1.1 ListJoinJoin Type

The **ListJoinJoinType** type specifies the type of the join.

```
  <xs:simpleType name="ListJoinJoinType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="LEFT" />
        <xs:enumeration value="INNER" />
    </xs:restriction>
  </xs:simpleType>
```

The following table describes possible values.

Value	Description
LEFT	A left outer join
INNER	An inner join

2.2.2 Complex Types

The following XML Schema complex type definitions are specific to query operations.

2.2.2.1 CamlQueryRoot Type

The **CamlQueryRoot** type specifies conditions and preferences for returning list items from a larger set of list items.

2.2.2.1.1 Schema

```
<xs:complexType name="CamlQueryRoot">
  <xs:all>
    <xs:element name="Where" type="LogicalJoinDefinition" minOccurs="0" maxOccurs="1" />
    <xs:element name="OrderBy" type="OrderByDefinition" minOccurs="0" maxOccurs="1" />
    <xs:element name="GroupBy" type="GroupByDefinition" minOccurs="0" maxOccurs="1" />
    <xs:element name="WithIndex" type="LogicalWithIndexDefinition" minOccurs="0"
maxOccurs="1" />
  </xs:all>
</xs:complexType>
```

2.2.2.1.2 Attributes

None.

2.2.2.1.3 Child Elements

Where: Specifies a set of conditions to filter a list of **items** retrieved from a set of items.

WithIndex: Specifies a set of conditions and a **composite field index** to filter a list of items retrieved from a set of items.

OrderBy: Specifies a set of **fields (1)** to sort results obtained from a query.

GroupBy: Specifies a set of fields (1) to group results obtained from a query.

2.2.2.2 LogicalJoinDefinition Type

The **LogicalJoinDefinition** type specifies a restriction on the items returned by the query. When this element is present and has child elements, the server MUST return only list items that satisfy the conditions specified by those child elements. When there are no child elements, no additional conditions apply to the query.

2.2.2.2.1 Schema

```
<xs:complexType name="LogicalJoinDefinition">
  <xs:choice minOccurs="0" maxOccurs="unbounded">
    <xs:element name="And" type="ExtendedLogicalJoinDefinition" />
    <xs:element name="BeginsWith" type="LogicalTestDefinition" />
    <xs:element name="Contains" type="LogicalTestDefinition" />
    <xs:element name="DateRangesOverlap" type="LogicalTestDefinitionDateRange" />
    <xs:element name="Eq" type="LogicalTestDefinition" />
    <xs:element name="Geq" type="LogicalTestDefinition" />
    <xs:element name="Gt" type="LogicalTestDefinition" />
    <xs:element name="In" type="LogicalTestInValuesDefinition" />
    <xs:element name="Includes" type="LogicalTestDefinition" />
    <xs:element name="IsNotNull" type="LogicalNullDefinition" />
    <xs:element name="IsNull" type="LogicalNullDefinition" />
    <xs:element name="Leq" type="LogicalTestDefinition" />
    <xs:element name="Lt" type="LogicalTestDefinition" />
```

```
        <xs:element name="Membership" type="MembershipDefinition" />
        <xs:element name="Neq" type="LogicalTestDefinition" />
        <xs:element name="NotIncludes" type="LogicalTestDefinition" />
        <xs:element name="Or" type="ExtendedLogicalJoinDefinition" />
      </xs:choice>
   </xs:complexType>
```

2.2.2.2.2 Attributes

None.

2.2.2.2.3 Child Elements

Eq: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is equal to the **Value** element.

Neq: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is not equal to the **Value** element.

Gt: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is greater than the **Value** element.

Geq: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is greater than or equal to the **Value** element.

Lt: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is less than the **Value** element.

Leq: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is less than or equal to the **Value** element.

BeginsWith: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element begins with the **Value** element.

Contains: Specifies whether the **Value** element appears in a list item field referred to by the **FieldRef** element.

Includes: If the specified field (1) is a **lookup field** that allows multiple values, this element specifies whether the **Value** element is in the list item for the field (1) specified by the **FieldRef** element.

NotIncludes: If the specified field (1) is a **lookup** field that allows multiple values, this element specifies whether the **Value** element is not in the list item for the field (1) specified by the **FieldRef** element.

DateRangesOverlap: Specifies whether a date range defined by the specified list item fields (1) overlaps with a date range defined by a specified value.

The first date range is defined by at least two, and at most three, **FieldRef** elements. Each **FieldRef** element MUST refer to one of the following field types, or the protocol server MUST return an error:

▪ **DateTime** field (1)

▪ **Lookup** field with a target **DateTime** field

▪ **Calculated** field (1) with a formula that returns a **DateTime** value

The first **FieldRef** element represents the beginning of a time period. The second **FieldRef** element represents the end of a time period. The third **FieldRef** element, when present, represents the start date and time of a **recurrence exception**.

The second date range is defined by the **Value** element.

When the **Value** element has the child **Month**, the comparison MUST apply the following interpretation to the date range:

▪ If the site (2) uses the Gregorian calendar, the date range begins six days before the first day of the current month and ends six days after the last day of the current month.

▪ For other calendars, the date range begins 30 days before the first day of the current month and ends 30 days after the last day of the current month.

See **ValueDefinitionDateRange Type** (section 2.2.2.12) for more information.

IsNull: Specifies that a list item field (1) specified by the **FieldRef** element is NULL.

IsNotNull: Specifies that a list item field (1) specified by the **FieldRef** element is not NULL.

Membership: Specifies a condition on the value of a list item for the field (1) specified by the **FieldRef** element.

FieldRef MUST refer to a **lookup** field, **Counter** field, or **integer** field (1).

The **Type** attribute of this element identifies the membership test to perform. The following table describes possible values.

Value	Description
SPWeb.AllUsers	Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is the identifier of a user who is either a member of the site (2) or who has browsed to the site (2) as an authenticated member of a domain group in the site (2).
SPGroup	Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is the identifier of a **group (2)** of which the **current user** is a member. The **ID** attribute of the **Membership** element MUST be present and non-empty. The **ID** attribute identifies a group. The current user MUST have permission to view the membership of the group that has the specified identifier.
SPWeb.Groups	Specifies whether a list item field (1) specified by the **FieldRef** element is the identifier of a group in the site (2).
CurrentUserGroups	Specifies whether a list item field (1) specified by the **FieldRef** element is the identifier of a group of which the current user is a member.
SPWeb.Users	Specifies whether a list item field (1) specified by the **FieldRef** element is the identifier of a user that has been explicitly granted permission to the site (2).

And: Specifies whether both of the conditions described by the child elements are satisfied.

Or: Specifies whether at least one of the conditions described by its child elements is satisfied.

In: Specifies whether the value of a list item for the field (1) specified by the **FieldRef** element is equal to one of the **Values** element.

2.2.2.3 OrderByDefinition Type

The **OrderByDefinition** type specifies conditions for the final sort order for the result set from a query.

2.2.2.3.1 Schema

```
<xs:complexType name="OrderByDefinition">
  <xs:sequence>
    <xs:element name="FieldRef" type="FieldRefDefinitionOrderBy" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Override" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE"/>
</xs:complexType>
```

2.2.2.3.2 Attributes

Override: If Override is **true**, the server MUST NOT give additional sort order conditions not specified under the **CamlQueryRoot** higher priority than the conditions specified under the **CamlQueryRoot**.

2.2.2.3.3 Child Elements

FieldRef: Specifies the name of a field (1) to use for ordering.

2.2.2.4 FieldRefDefinitionOrderBy Type

The **FieldRefDefinitionOrderBy** type specifies a field (1) to use in an **OrderByDefinition**.

2.2.2.4.1 Schema

```
<xs:complexType name="FieldRefDefinitionOrderBy">
  <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
  <xs:attribute name="Name" type="xs:string" use="optional" />
  <xs:attribute name="Ascending" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
</xs:complexType>
```

2.2.2.4.2 Attributes

ID: Identifier of the field (1) to use for ordering.

Name: **Field internal name** of the field (1) or name of the projected field (1) specified in the **ProjectedFields** element to use for ordering.

When both **ID** and **Name** are present, the server MUST use **ID** to match the field (1).

Ascending: Specifies whether this field (1) is sorted in increasing order, based on sorting rules for the field type.

2.2.2.4.3 Child Elements

None.

2.2.2.5 GroupByDefinition Type

The **GroupByDefinition** type specifies the groups into which list items are to be placed to create the final result set. The groups are created by combining into a single group all the items that have identical values for a particular field (1) or combination of fields (1) as specified by the **FieldRef** element.

2.2.2.5.1 Schema

```
<xs:complexType name="GroupByDefinition">
  <xs:sequence>
    <xs:element name="FieldRef" type="FieldRefDefinitionGroupBy" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Collapse" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE"/>
  <xs:attribute name="GroupLimit" type="IntNonNegative" use="optional" default="100"/>
</xs:complexType>
```

2.2.2.5.2 Attributes

Collapse: If **true** and there are **computed fields** in the **ViewFields** element, the number of rows present in the result set MUST NOT be affected by the **GroupBy** element. If there are no computed fields in the **ViewFields** section, the number of rows present in the result set MAY be restricted to the number of unique tuples, where a tuple is a set of field values. Otherwise, the number of rows in the result set MUST NOT be affected by the **GroupBy** element.

GroupLimit: Specifies the number of groups for a **paged view**. If the **Collapse** attribute is set to **true** and there are no computed fields in the **ViewFields** section, the number of groups for a paged view can be restricted to the specified value.

2.2.2.5.3 Child Elements

FieldRef: Specifies the name of a field (1) to use for grouping.

2.2.2.6 FieldRefDefinitionGroupBy Type

The **FieldRefDefinitionGroupBy** type specifies a field (1) whose value can be used to perform a grouping through **GroupByDefinition**.

2.2.2.6.1 Schema

```
<xs:complexType name="FieldRefDefinitionGroupBy">
  <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
  <xs:attribute name="Name" type="xs:string" />
  <xs:attribute name="Ascending" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
</xs:complexType>
```

2.2.2.6.2 Attributes

ID: Identifier of the field (1) to use for grouping.

Name: Field internal name of the field (1) to use for grouping.

Ascending: Specifies whether this field (1) is sorted in increasing order, based on sorting rules for the field type.

When both **ID** and **Name** are present, the attributes MUST identify the same field (1).

2.2.2.6.3 Child Elements

None.

2.2.2.7 ExtendedLogicalJoinDefinition Type

The **ExtendedLogicalJoinDefinition** type specifies a restriction on the list items returned by the query. When this element is present and contains child elements, the server MUST return only list items that satisfy the conditions specified by those child elements.

2.2.2.7.1 Schema

```
<xs:complexType name="ExtendedLogicalJoinDefinition">
  <xs:sequence>
    <xs:choice minOccurs="2" maxOccurs="2">
      <xs:element name="And" type="ExtendedLogicalJoinDefinition" />
      <xs:element name="BeginsWith" type="LogicalTestDefinition" />
      <xs:element name="Contains" type="LogicalTestDefinition" />
      <xs:element name="DateRangesOverlap" type="LogicalTestDefinitionDateRange" />
      <xs:element name="Eq" type="LogicalTestDefinition" />
      <xs:element name="Geq" type="LogicalTestDefinition" />
      <xs:element name="Gt" type="LogicalTestDefinition" />
      <xs:element name="In" type="LogicalTestInValuesDefinition" />
      <xs:element name="Includes" type="LogicalTestDefinition" />
      <xs:element name="IsNull" type="LogicalNullDefinition" />
      <xs:element name="IsNotNull" type="LogicalNullDefinition" />
      <xs:element name="Leq" type="LogicalTestDefinition" />
      <xs:element name="Lt" type="LogicalTestDefinition" />
      <xs:element name="Membership" type="MembershipDefinition" />
      <xs:element name="Neq" type="LogicalTestDefinition" />
      <xs:element name="NotIncludes" type="LogicalTestDefinition" />
      <xs:element name="Or" type="ExtendedLogicalJoinDefinition" />
    </xs:choice>
  </xs:sequence>
</xs:complexType>
```

2.2.2.7.2 Attributes

None.

2.2.2.7.3 Child Elements

See child elements of **LogicalJoinDefinition Type** (section 2.2.2.2).

2.2.2.8   LogicalTestDefinition Type

The **LogicalTestDefinition** type compares a list item field value and another specified value.

2.2.2.8.1   Schema

```
<xs:complexType name="LogicalTestDefinition">
  <xs:all>
    <xs:element name="FieldRef" type="FieldRefDefinitionQueryTest" minOccurs="1"
 maxOccurs="1" />
    <xs:element name="Value" type="ValueDefinition" minOccurs="1" maxOccurs="1" />
  </xs:all>
</xs:complexType>
```

2.2.2.8.2   Attributes

None.

2.2.2.8.3   Child Elements

FieldRef: List item field (1) or projected field (1) specified in the **ProjectedFields** element that contains the value to be compared.

Value: Value to be compared to the list item for the field (1) specified by the **FieldRef** attribute.

2.2.2.9   ValueDefinition Type

The **ValueDefinition** type specifies a value that is included in a comparison.

2.2.2.9.1   Schema

```
<xs:complexType name="ValueDefinition" mixed="true">
  <xs:sequence>
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:any namespace="##any" processContents="skip" />
    </xs:choice>
  </xs:sequence>
  <xs:attribute name="Type" type="xs:string" use="optional" />
</xs:complexType>
```

2.2.2.9.2   Attributes

Type: Data type of the value.

2.2.2.9.3   Child Elements

None.

2.2.2.10   FieldRefDefinitionQueryTest Type

The **FieldRefDefinitionQueryTest** type specifies a field (1) to use in a query comparison.

2.2.2.10.1 Schema

```
<xs:complexType name="FieldRefDefinitionQueryTest">
  <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
  <xs:attribute name="Name" type="xs:string" use="optional" />
  <xs:attribute name="LookupId" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
</xs:complexType>
```

2.2.2.10.2 Attributes

ID: Identifier of the field (1) to be used in the query.

Name: Field internal name of the field or the name of the projected field specified in the
ProjectedFields element to be used in the query.

When both **ID** and **Name** are present, the server MUST use **ID** to match the field (1).

LookupId: If **true** and the specified field (1) is a **lookup** field, the query MUST include the **item
identifier** of the lookup target. When the specified field (1) is not a **lookup** field, the server MUST
ignore this attribute.

2.2.2.10.3 Child Elements

None.

2.2.2.11 LogicalTestDefinitionDateRange Type

The **LogicalTestDefinitionDateRange** type defines a comparison of two or three fields (1) that
specify a first time period with a value that specifies a second time period.

2.2.2.11.1 Schema

```
<xs:complexType name="LogicalTestDefinitionDateRange">
  <xs:sequence>
    <xs:element name="FieldRef" type="FieldRefDefinitionQueryDate" minOccurs="2"
maxOccurs="3" />
    <xs:element name="Value" type="ValueDefinitionDateRange" minOccurs="1" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>
```

2.2.2.11.2 Attributes

None.

2.2.2.11.3 Child Elements

FieldRef: List item that specifies the beginning of the time period.

FieldRef: List item that specifies the end of the time period.

FieldRef: When present, the list item field that identifies a recurrence exception.

Value: Time period to be compared.

2.2.2.12 ValueDefinitionDateRange Type

The **ValueDefinitionDateRange** type specifies a value that is included in a date range comparison.

2.2.2.12.1 Schema

```
<xs:complexType name="ValueDefinitionDateRange" mixed="true">
  <xs:sequence>
    <xs:choice minOccurs="0" maxOccurs="1">
      <xs:element name="Month">
        <xs:complexType />
      </xs:element>
      <xs:element name="Now">
        <xs:complexType />
      </xs:element>
      <xs:element name="Today">
        <xs:complexType />
      </xs:element>
      <xs:element name="Week">
        <xs:complexType />
      </xs:element>
    </xs:choice>
  </xs:sequence>
  <xs:attribute name="Type" type="xs:string" use="optional" />
  <xs:attribute name="IncludeTimeValue" type="TRUEFALSE" use="optional" />
  <xs:attribute name="StorageTZ" type="TRUEFALSE" use="optional" />
</xs:complexType>
```

2.2.2.12.2 Attributes

Type: Data type of the value.

IncludeTimeValue: Specifies whether the value is interpreted as a date and time value or compared as a date-only value.

StorageTZ: Specifies whether the **DateTime** value is interpreted in Coordinated Universal Time (UTC).

2.2.2.12.3 Child Elements

An element of this type MUST contain one of the following:

▪ A string value in the following format, specified using the syntax description notation specified in [RFC2234] and [RFC3339]. If the string is missing or cannot be parsed in this format, the server MUST use the current day, in site local time.

```
date-fullyear date-month date-mday time-hour time-minute time-second "Z"
```

▪ A child element that defines the date range, as described in the following table.

Element	Description
Today	Date range is the current day, in site local time.
Week	Date range is the current week, in site local time.

Element	Description
Month	Date range is the current month, in site local time.
Now	Date range begins with the current day and ends two years after the current day, in site local time.

2.2.2.13 FieldRefDefinitionQueryDate Type

The **FieldRefDefinitionQueryDate** type specifies a field (1) to use in a query date comparison.

2.2.2.13.1 Schema

```
<xs:complexType name="FieldRefDefinitionQueryDate">
  <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
  <xs:attribute name="Name" type="xs:string" use="optional" />
</xs:complexType>
```

2.2.2.13.2 Attributes

ID: Identifier of the field (1) to be used in the query.

Name: Field internal name of the field (1) or the name of the projected field (1) specified in the **ProjectedFields** element to be used in the query.

When both **ID** and **Name** are present, the reader MUST use **ID** to match the field (1).

2.2.2.13.3 Child Elements

None.

2.2.2.14 LogicalNullDefinition Type

The **LogicalNullDefinition** type describes a comparison of a field (1) to NULL.

2.2.2.14.1 Schema

```
<xs:complexType name="LogicalNullDefinition">
  <xs:all>
    <xs:element name="FieldRef" type="FieldRefDefinitionQueryNull" minOccurs="1"
maxOccurs="1" />
  </xs:all>
</xs:complexType>
```

2.2.2.14.2 Attributes

None.

2.2.2.14.3 Child Elements

FieldRef: A reference to a field (1) whose value is to be used for the comparison.

2.2.2.15   FieldRefDefinitionQueryNull Type

The **FieldRefDefinitionQueryNull** type specifies a field (1) to use in a null comparison.

2.2.2.15.1   Schema

```
<xs:complexType name="FieldRefDefinitionQueryNull">
  <xs:attribute name="Name" type="xs:string" use="required" />
</xs:complexType>
```

2.2.2.15.2   Attributes

Name: Field internal name of the field (1) or name of the projected field (1) specified in the **ProjectedFields** element to be included.

2.2.2.15.3   Child Elements

None.

2.2.2.16   MembershipDefinition Type

The **MembershipDefinition** type defines a comparison of membership in a group.

2.2.2.16.1   Schema

```
<xs:complexType name="MembershipDefinition">
  <xs:complexContent>
    <xs:extension base="LogicalNullDefinition">
      <xs:attribute name="Type" type="xs:string" use="optional" />
      <xs:attribute name="ID" type="xs:integer" use="optional" />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

2.2.2.16.2   Attributes

ID: Integer that specifies the field (1) to be included.

Type: Specifies the type of membership. See **LogicalJoinDefinition Type** (section 2.2.2.2) for more information.

2.2.2.16.3   Child Elements

None.

2.2.2.17   LogicalTestInValuesDefinition Type

The **LogicalTestInValuesDefinition** type describes a comparison between the value of a list item field and a collection of specified values.

2.2.2.17.1   Schema

```
<xs:complexType name="LogicalTestInValuesDefinition">
```

```
      <xs:all>
         <xs:element name="FieldRef" type="FieldRefDefinitionQueryTest" minOccurs="1"
maxOccurs="1" />
         <xs:element name="Values" type="ValueDefinitionCollection" minOccurs="1" maxOccurs="1"
/>
      </xs:all>
   </xs:complexType>
```

2.2.2.17.2 Attributes

None.

2.2.2.17.3 Child Elements

FieldRef: A reference to a field (1) whose value is to be used for the comparison.

Values: A collection of values to be compared to the value of the list item for the field (1) specified by the **FieldRef** attribute.

2.2.2.18 ValueDefinitionCollection Type

The **ValueDefinitionCollection** type specifies a collection of values that are included in a comparison.

2.2.2.18.1 Schema

```
   <xs:complexType name="ValueDefinitionCollection">
     <xs:sequence>
       <xs:element name="Value" type="ValueDefinition" minOccurs="0" maxOccurs="unbounded" />
     </xs:sequence>
   </xs:complexType>
```

2.2.2.18.2 Attributes

None.

2.2.2.18.3 Child Elements

Value: Specifies a value in the collection.

2.2.2.19 ProjectedFieldsDefinitionType

The **ProjectedFieldsDefinitionType** type specifies the fields (1) to project from the joined lists as specified by the **Joins** element of the view.

2.2.2.19.1 Schema

```
   <xs:complexType name="ProjectedFieldsDefinitionType">
       <xs:sequence>
         <xs:element name="Field" type="ProjectedFieldDefinitionType" minOccurs="1"
maxOccurs="unbounded" />
       </xs:sequence>
     </xs:complexType>
```

2.2.2.19.2   Attributes

None.

2.2.2.19.3   Child Elements

Field: Specifies a **field definition**.

2.2.2.20   ProjectedFieldDefinitionType

The **ProjectedFieldDefinitionType** specifies a field (1) to project from the joined lists as specified by the **Joins** or the **FieldRef** element of the view.

2.2.2.20.1   Schema

```
<xs:complexType name="ProjectedFieldDefinitionType">
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="ShowField" type="xs:string" use="required" />
    <xs:attribute name="Type" type="xs:string" use="required" fixed="Lookup" />
    <xs:attribute name="List" type="xs:string" />
    <xs:attribute name="FieldRef" type="xs:string" />
</xs:complexType>
```

2.2.2.20.2   Attributes

Name: String that identifies the field (1) in its list (2).

ShowField: Field internal name of the field (1) to project from the list (2) specified by either the **List** or the **FieldRef** attribute.

Type: The type of field (1).

List: Specifies the list (2) from which field (1) specified by **ShowField** MUST be projected. The value of the attribute MUST be equal to the **ListAlias** attribute of one of the joined lists specified by the **Joins** element of the view.

FieldRef: Field internal name of the **lookup** field of the list for which the query is specified. Target list of this **lookup** field specifies a list that MUST be used to project **ShowField**. When the **FieldRef** attribute is specified, the **Joins** element of the view MUST NOT be used for projection of **ShowField**.

Either the **List** or the **FieldRef** attributes can be present, and at least one of them MUST be specified.

2.2.2.21   ListJoinsDefinitionType

The **ListJoinsDefinitionType** type specifies the list of joins between lists.

2.2.2.21.1   Schema

```
<xs:complexType name="ListJoinsDefinitionType">
   <xs:sequence>
     <xs:element name="Join" type="ListJoinDefinitionType" minOccurs="1"
maxOccurs="unbounded" />
   </xs:sequence>
```

```
</xs:complexType>
```

2.2.2.21.2   Attributes

None.

2.2.2.21.3   Child Elements

Join: Specifies a join between two lists.

2.2.2.22   ListJoinDefinitionType

The **ListJoinDefinitionType** type specifies a join between two lists.

2.2.2.22.1   Schema

```
<xs:complexType name="ListJoinDefinitionType">
  <xs:choice>
      <xs:element name="Eq" type="ListJoinConditionDefinitionType" />
  </xs:choice>
    <xs:attribute name="Type" type="ListJoinJoinType" default="LEFT" />
    <xs:attribute name="ListAlias" type="xs:string" />
</xs:complexType>
```

2.2.2.22.2   Attributes

Type: Specifies the type of join.

ListAlias: Specifies a temporary name to use for the right list of the join when running a query. The value MUST be unique across all **Join** elements in the query.

2.2.2.22.3   Child Elements

Eq: Specifies the join condition that values of the fields specified by the two **FieldRef** elements are equal.

2.2.2.23   ListJoinConditionDefinitionType

The **ListJoinConditionDefinitionType** type specifies the condition of the list join.

2.2.2.23.1   Schema

```
<xs:complexType name="ListJoinConditionDefinitionType">
    <xs:sequence>
      <xs:element name="FieldRef" minOccurs="2" maxOccurs="2" />
    </xs:sequence>
  </xs:complexType>
```

2.2.2.23.2   Attributes

None.

2.2.2.23.3 Child Elements

FieldRef: There are two **FieldRef** elements, one type is
ListJoinConditionSourceFieldDefinitionType and the other is
ListJoinConditionTargetFieldDefinitionType. Each element specifies one of the fields (1) to be
used in the join condition.

2.2.2.24 ListJoinConditionSourceFieldDefinition Type

The **ListJoinConditionSourceFieldDefinitionType** type specifies the field (1) of the left list that is
involved in the join condition.

2.2.2.24.1 Schema

```
<xs:complexType name="ListJoinConditionSourceFieldDefinitionType">
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="RefType" type="xs:string" use="required" fixed="Id" />
    <xs:attribute name="List" type="xs:string" />
</xs:complexType>
```

2.2.2.24.2 Attributes

Name: Field internal name of the field (1), which MUST be a **lookup** field of the left list of the join.

RefType: Specifies whether the value to be used is the value of **Id** field (1) of the list item or the
value of the field (1).

List: Specifies the left list of the join. The value of the attribute MUST be equal to the **ListAlias**
attribute of one of the joined lists specified by the **Joins** element of the view.

2.2.2.25 ListJoinConditionTargetFieldDefinition Type

The **ListJoinConditionTargetFieldDefinitionType** type specifies a field (1) of the right list that is
involved in the join condition.

2.2.2.25.1 Schema

```
<xs:complexType name="ListJoinConditionTargetFieldDefinitionType">
  <xs:attribute name="Name" type="xs:string" use="required" fixed="Id" />
  <xs:attribute name="List" type="xs:string" use="required" />
</xs:complexType>
```

2.2.2.25.2 Attributes

Name: Specifies the field internal name of the field (1) used in the join condition.

List: Specifies the right list of the join. The value of this attribute MUST be the same as the value of
the **ListAlias** attribute of the containing **Join** element.

2.2.2.26 LogicalWithIndexDefinition Type

The **LogicalWithIndexDefinition** type specifies a restriction on the items returned by the query.
When this element is present and contains child elements, the server MUST return only list items

that satisfy the conditions specified by those child elements. When there are no child elements, no additional conditions apply to the query.

2.2.2.26.1 Schema

```
<xs:complexType name="LogicalWithIndexDefinition">
  <xs:choice minOccurs="1" maxOccurs="1">
    <xs:element name="And" type="ExtendedLogicalJoinDefinitionWithIndex" />
    <xs:element name="Eq" type="LogicalTestDefinition" />
  </xs:choice>
  <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="required" />
</xs:complexType>
```

2.2.2.26.2 Attributes

ID: Identifier of the composite field index to use when evaluating the conditions specified by the child elements of the **LogicalWithIndexDefinition**. The **ID** MUST refer to a composite field index that is defined for the list.

2.2.2.26.3 Child Elements

And: Specifies whether both of the conditions described by its child elements are satisfied.

Eq: Specifies whether a list item field (1) specified by the **FieldRef** element is equal to the **Value** element.

2.2.2.27 ExtendedLogicalJoinDefinitionWithIndex Type

The **ExtendedLogicalJoinDefinitionWithIndex** type specifies a restriction on the list items returned by the query, using the composite field index identified by the **ID** attribute of the parent **LogicalWithIndexDefinition**. When this element is present and has child elements, the server MUST return only list items that satisfy the conditions specified by those child elements. Any **FieldRef** element in the conditions specified by the child elements MUST refer to a field (1) that is included in the composite field index.

2.2.2.27.1 Schema

```
<xs:complexType name="ExtendedLogicalJoinDefinitionWithIndex">
  <xs:choice>
    <xs:sequence>
      <xs:element name="Eq" type="LogicalTestDefinition" />
      <xs:choice minOccurs="1" maxOccurs="1">
        <xs:element name="Geq" type="LogicalTestDefinition" />
        <xs:element name="Gt" type="LogicalTestDefinition" />
        <xs:element name="Eq" type="LogicalTestDefinition" />
        <xs:element name="In" type="LogicalTestInValuesDefinition" />
        <xs:element name="Leq" type="LogicalTestDefinition" />
        <xs:element name="Lt" type="LogicalTestDefinition" />
      </xs:choice>
    </xs:sequence>
    <xs:sequence>
      <xs:choice minOccurs="1" maxOccurs="1">
        <xs:element name="Geq" type="LogicalTestDefinition" />
        <xs:element name="Gt" type="LogicalTestDefinition" />
        <xs:element name="In" type="LogicalTestInValuesDefinition" />
```

```
            <xs:element name="Leq" type="LogicalTestDefinition" />
            <xs:element name="Lt" type="LogicalTestDefinition" />
        </xs:choice>
        <xs:element name="Eq" type="LogicalTestDefinition" />
      </xs:sequence>
    </xs:choice>
  </xs:complexType>
```

2.2.2.27.2   Attributes

None.

2.2.2.27.3   Child Elements

Eq: Specifies whether a list item field (1) specified by the **FieldRef** element is equal to the **Value** element.

Geq: Specifies whether a list item field (1) specified by the **FieldRef** element is greater than or equal to the **Value** element.

Gt: Specifies whether a list item field (1) specified by the **FieldRef** element is greater than the **Value** element.

In: Specifies whether a list item field (1) specified by the **FieldRef** element is equal to one of the values specified by the **Values** element.

Leq: Specifies whether a list item field (1) specified by the **FieldRef** element is less than or equal to the **Value** element.

Lt: Specifies whether a list item field (1) specified by the **FieldRef** element is less than the **Value** element.

2.3   List Schema Definitions

Types in this section can be used to define a list, as well as the components of a list, such as a **list form** or a list **view**.

2.3.1   Simple Types

2.3.1.1   ListTemplateBaseType

The **ListTemplateBaseType** type specifies the base type of a **list template**.

```
    <xs:simpleType name="ListTemplateBaseType">
      <xs:restriction base="xs:int ">
        <xs:enumeration value="0" />
        <xs:enumeration value="1" />
        <xs:enumeration value="3" />
        <xs:enumeration value="4" />
        <xs:enumeration value="5" />
      </xs:restriction>
    </xs:simpleType>
```

The following table describes possible values.

Value	Description
0	The list template is based on a list.
1	The list template is based on a **document library**.
3	The list template is based on a **discussion board**.
4	The list template is based on a **survey list**.
5	The list template is based on an issues list.

2.3.1.2 AggregationsType

The **AggregationsType** type specifies a type for an aggregation operation on a query. This type is defined as follows:

```
<xs:simpleType name="AggregationsType">
    <xs:restriction base="xs:string">
      <xs:pattern
value="([Aa][Vv][Gg])|([Cc][Oo][Uu][Nn][Tt])|([Mm][Aa][Xx])|([Mm][Ii][Nn])|([Ss][Tt][Dd][Ee][Vv])|([Ss][Uu][Mm])|([Vv][Aa][Rr])" />
    </xs:restriction>
</xs:simpleType>
```

The following table describes possible values.

Value	Description
Avg	Returns the average of all non-null values from the specified expression.
Count	Returns a count of the values from the specified expression.
Max	Returns the maximum value from all non-null values of the specified expression.
Min	Returns the minimum value from all non-null values of the specified expression.
StDev	Returns the standard deviation of all non-null values of the specified expression.
Sum	Returns a sum of the values of the specified expression.
Var	Returns the variance of all non-null values of the specified expression.

2.3.1.3 AggregationsValue Type

The **AggregationsValue** type specifies whether an aggregation is enabled for a query. This type is defined as follows:

```
<xs:simpleType name="AggregationsValue">
    <xs:restriction base="xs:string">
      <xs:pattern value="On|.*" />
    </xs:restriction>
  </xs:simpleType>
```

2.3.1.4 ContentTypeId Type

The **ContentTypeId** type is the identifier for the specified content type. See [MS-WSSTS] section 2.1.2.8.1 for more information about the structure of a content type identifier.

```
<xs:simpleType name="ContentTypeId">
  <xs:restriction base="xs:string">
    <xs:pattern value="0x([0-9A-Fa-f][1-9A-Fa-f]|[1-9A-Fa-f][0-9A-Fa-f]|00[0-9A-Fa-f]{32})*" />
    <xs:minLength value="2"/>
    <xs:maxLength value="1026"/>
  </xs:restriction>
</xs:simpleType>
```

2.3.1.5 FormType

The **FormType** type specifies the type of the role of a particular **form (1)**.

```
<xs:simpleType name="FormType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="DisplayForm" />
    <xs:enumeration value="EditForm" />
    <xs:enumeration value="NewForm" />
    <xs:enumeration value="NewFormDialog" />
    <xs:enumeration value="SolutionForm" />
  </xs:restriction>
</xs:simpleType>
```

The following table describes possible values.

Value	Description
DisplayForm	A form that displays an individual list item.
EditForm	A form that edits an individual list item.
NewForm	A form that creates an individual list item.
NewFormDialog	A form that creates an individual list item within a client application.
SolutionForm	A form that creates a solution.

2.3.1.6 ListTemplateCategoryType

The **ListTemplateCategoryType** type specifies a category for a list template. This type is defined as follows:

```
<xs:simpleType name="ListTemplateCategoryType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Libraries" />
    <xs:enumeration value="Communications" />
    <xs:enumeration value="Tracking" />
    <xs:enumeration value="Custom Lists" />
  </xs:restriction>
```

```
    </xs:simpleType>
```

The following table describes possible values.

Value	Description
Libraries	Specifies that the template is categorized with other library-style templates.
Communications	Specifies that the template is categorized with templates that are used for communicating.
Tracking	Specifies that the template is categorized with other tracking templates.
Custom Lists	Specifies that the template is categorized with other miscellaneous custom list templates.

2.3.1.7 ToolbarPosition

The **ToolbarPosition** type specifies where the **toolbar** is rendered on a page, relative to the main view content.

```
<xs:simpleType name="ToolbarPosition">
  <xs:restriction base="xs:string">
    <xs:enumeration value="After" />
  </xs:restriction>
</xs:simpleType>
```

After specifies that the toolbar is positioned after the main view content.

2.3.1.8 ToolbarType

The **ToolbarType** type specifies the type of toolbar to be rendered in the user interface for a list.

```
<xs:simpleType name="ToolbarType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Standard" />
    <xs:enumeration value="FreeForm" />
    <xs:enumeration value="RelatedTasks" />
    <xs:enumeration value="None" />
  </xs:restriction>
</xs:simpleType>
```

The following table describes possible values.

Value	Description
Standard	A standard toolbar in a view.
FreeForm	A toolbar used in a summary view on a home page.
RelatedTasks	A toolbar with actions related to an item.
None	This view has no toolbar.

2.3.1.9 ViewModerationType

The **ViewModerationType** type specifies a style of moderation for a list.

```
<xs:simpleType name="ViewModerationType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Moderator" />
    <xs:enumeration value="Contributor" />
    <xs:enumeration value="HideUnapproved" />
    <xs:enumeration value="" />
  </xs:restriction>
</xs:simpleType>
```

This type MUST be one of the values in the following table, or it MUST be empty.

Value	Description
Moderator	System-created moderator's view of a **moderated list**, which displays list items that are pending approval. See also VIEWFLAG_MODTYPEMODERATOR (0x00008000) in [MS-WSSFO2] section 2.2.2.12.
Contributor	System-created view of a user's items awaiting moderation in a moderated list. See also VIEWFLAG_MODTYPECONTRIBUTOR (0x00004000) in [MS-WSSFO2] section 2.2.2.12.
HideUnapproved	View does not display items that have not been approved. Implementations MUST NOT show this view to anonymous users. See also VIEWFLAG_MODTYPEHIDEUNAPPROVED (0x20000000) in [MS-WSSFO2] section 2.2.2.12.
(empty string)	Unused flag value, which MUST be ignored by client applications.

2.3.1.10 ViewPageLevel

The **ViewPageLevel** type specifies the **publishing level** of a page that contains the view. See [MS-WSSFO2] section 2.2.2.6.

```
<xs:simpleType name="ViewPageLevel">
  <xs:restriction base="xs:int ">
    <xs:enumeration value="1" />
    <xs:enumeration value="2" />
    <xs:enumeration value="255" />
  </xs:restriction>
</xs:simpleType>
```

2.3.1.11 ViewScope

The **ViewScope** type specifies whether and how files and subfolders are included in a view.

```
<xs:simpleType name="ViewScope">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Recursive" />
    <xs:enumeration value="RecursiveAll" />
    <xs:enumeration value="FilesOnly" />
    <xs:enumeration value="" />
```

```
          </xs:restriction>
      </xs:simpleType>
```

The following table describes possible values.

Value	Description
FilesOnly	Shows only the files in the specified folder. See also VIEWFLAG_FILESONLY &~VIEWFLAG_RECURSIVE (0x00200000&~ 0x00001000) in [MS-WSSFO2] section 2.2.2.12.
Recursive	Shows all files in the specified folder or any folder descending from it. See also (VIEWFLAG_FILESONLY |VIEWFLAG_RECURSIVE (0x00200000|0x00001000) in [MS-WSSFO2] section 2.2.2.12.
RecursiveAll	Shows all files and folders in the specified folder or any folder descending from it. See also VIEWFLAG_RECURSIVE &~ VIEWFLAG_FILESONLY (0x00001000&~0x20000000) in [MS-WSSFO2] section 2.2.2.12.
(empty string)	Shows only the files and subfolders of the specified folder.

2.3.1.12 ViewType

The **ViewType** type specifies the type of view rendering.

```
<xs:simpleType name="ViewType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="HTML" />
    <xs:enumeration value="GRID" />
    <xs:enumeration value="CALENDAR" />
    <xs:enumeration value="RECURRENCE" />
    <xs:enumeration value="CHART" />
    <xs:enumeration value="GANTT" />
    <xs:enumeration value="TABLE" />
  </xs:restriction>
</xs:simpleType>
```

The following table describes possible values.

Value	Description
HTML	Normal HTML-based view. See also VIEWFLAG_HTML (0x00000001) in [MS-WSSFO2] section 2.2.2.12.
GRID	View presents a datasheet view of a rich client application. See also VIEWFLAG_GRID (0x00000800) in [MS-WSSFO2] section 2.2.2.12.
CALENDAR	Displays data on a calendar based on date and time properties of the list items. See also VIEWFLAG_CALENDAR (0x00080000) in [MS-WSSFO2] section 2.2.2.12.
RECURRENCE	Requires that the data of the view be expanded, based on a calendar recurrence—for example, having a view of list item data for the first Thursday of every month. See also VIEWFLAG_RECURRENCE_RS (0x00002000) in [MS-WSSFO2] section 2.2.2.12.
CHART	Displays HTML-based graphical charts of list item data. See also VIEWFLAG_CHART

Value	Description
	(0x00020000) in [MS-WSSFO2] section 2.2.2.12.
GANTT	Displays list item data in a Gantt chart. See also VIEWFLAG_GANTT (0x04000000) in [MS-WSSFO2] section 2.2.2.12.
TABLE	The implementation MUST write this value if the **ViewType** is not **HTML**, **GRID**, **CALENDAR**, **RECURRENCE**, **CHART**, or **GANTT**.

2.3.2 Complex Types

2.3.2.1 AggregationsDefinition Type

The **AggregationsDefinition** type specifies how the view is aggregated.

2.3.2.1.1 Schema

```
<xs:complexType name="AggregationsDefinition">
    <xs:sequence>
      <xs:element name="FieldRef" type="FieldRefDefinitionAggregation" minOccurs="0"
maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="Value" type="AggregationsValue" use="optional"/>
  </xs:complexType>
```

2.3.2.1.2 Attributes

Value: If set to "On", the reader MUST interpret this to mean that aggregation of the field (1) specified in the preceding **FieldRef** is calculated. Otherwise, the reader MUST ignore the element.

2.3.2.1.3 Child Elements

FieldRef: Specifies the field (1) on which aggregation occurs.

2.3.2.2 FieldRefDefinitionAggregation Type

The **FieldRefDefinitionAggregation** type specifies the field (1) to be aggregated.

2.3.2.2.1 Schema

```
<xs:complexType name="FieldRefDefinitionAggregation">
    <xs:attribute name="Name" type="xs:string" use="required"/>
    <xs:attribute name="Type" type="AggregationsType" use="required"/>
  </xs:complexType>
```

2.3.2.2.2 Attributes

Name: Name of the field (1) to aggregate.

Type: Type of aggregation to be performed.

2.3.2.2.3 Child Elements

None.

2.3.2.3 CalendarViewStylesDefinition Type

The **CalendarViewStylesDefinition** type specifies zero or more calendar view styles.

2.3.2.3.1 Schema

```
<xs:complexType name="CalendarViewStylesDefinition" mixed="true">
    <xs:sequence>
      <xs:element name="CalendarViewStyle" type="CalendarViewStyleDefinition" minOccurs="0"
maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
```

2.3.2.3.2 Attributes

None.

2.3.2.3.3 Child Elements

CalendarViewStyle: An instance of a calendar view style definition.

2.3.2.4 CalendarViewStyleDefinition Type

The **CalendarViewStyleDefinition** type expresses a single calendar view style for a view.

2.3.2.4.1 Schema

```
<xs:complexType name="CalendarViewStyleDefinition" mixed="true">
    <xs:all>
      <xs:element name="AccessKey" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="ImageName" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="ImageWidth" type="xs:int" minOccurs="0" maxOccurs="1" />
      <xs:element name="ImageHeight" type="xs:int" minOccurs="0" maxOccurs="1" />
    </xs:all>
    <xs:attribute name="Title" type="xs:string" />
    <xs:attribute name="Type" type="xs:string" />
    <xs:attribute name="Template" type="xs:string" />
    <xs:attribute name="Sequence" type="xs:int" />
    <xs:attribute name="Default" type="TRUEFALSE" default="FALSE"/>
  </xs:complexType>
```

2.3.2.4.2 Child Elements

AccessKey: Specifies the keyboard shortcut to activate or focus on the calendar view style.

ImageName: File name of the image icon for the calendar view style.

ImageWidth: Width of the image icon for the calendar view style.

ImageHeight: Height of the image icon for the calendar view style.

2.3.2.4.3 Attributes

Title: Title of the calendar view style.

Type: Type of the calendar view style.

Template: Predefined **control template** for the calendar view style.

Sequence: Sequence order for the calendar view style.

Default: Specifies whether this is the default calendar view style.

2.3.2.5 FormDefinition Type

The **FormDefinition** type specifies a definition of list forms used to create, modify, or display individual list items.

2.3.2.5.1 Schema

```
<xs:complexType name="FormDefinition">
    <xs:all>
      <xs:element name="ListFormOpening" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ListFormButtons" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ListFormBody" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ListFormClosing" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
    </xs:all>
    <xs:attribute name="Path" type="RelativeFilePath" />
```

```
      <xs:attribute name="SetupPath" type="RelativeFilePath" />
      <xs:attribute name="Url" type="RelativeUrl" />
      <xs:attribute name="Type" type="FormType" />
      <xs:attribute name="UseLegacyForm" type="TRUEFALSE" default="FALSE"/>
      <xs:attribute name="Template" type="xs:string" />
      <xs:attribute name="WebPartZoneID" type="xs:string" />
      <xs:attribute name="FormID" type="xs:int" default="0"  />
      <xs:attribute name="Name" type="UniqueIdentifierWithBraces" />
      <xs:attribute name="ToolbarTemplate" type="xs:string" />
      <xs:attribute name="Default" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="MobileUrl" type="RelativeUrl" />
  </xs:complexType>
```

2.3.2.5.2   Attributes

Type: Type of the list form.

Name: Internal identifier for the **Web Part**.

SetupPath: Source file path to the ghosted document on the front-end Web server. This path MUST be relative to the application root path.

Path: Source path to the ghosted document. If the **SetupPath** attribute is specified, the reader MUST ignore this attribute and use the value of **SetupPath**.

FormID: Identifier of the list form.

WebPartZoneID: Identifier of the **Web Part zone** in which the list form Web Part exists.

UseLegacyForm: Specifies whether to use the obsolete XML-based form rendering infrastructure.

Template: Name of the list form control template. The list of available control templates depends on the server implementation.

ToolbarTemplate: Control template of the tool bar used in this list form.

Url: Specifies the URL of the page hosting the list form.

Default: Specifies whether this is the default list form for the type specified by the **Type** attribute for the list (1).

MobileUrl: Specifies the URL of the page hosting the list form that is suitable for **mobile devices**.

2.3.2.5.3   Child Elements

ListFormOpening: Specifies the rendering for the beginning of a list form. The reader MUST ignore the **ListFormOpening** element if **UseLegacyForm** is set to **false**.

ListFormButtons: Specifies the rendering for a button area of a list form. The reader MUST ignore the **ListFormButtons** element if **UseLegacyForm** is set to **false**.

ListFormBody: Specifies the rendering for the body of a list form. The reader MUST ignore the **ListFormBody** element if **UseLegacyForm** is set to **false**.

ListFormClosing: Specifies the rendering for the footer of a list form. The reader MUST ignore the **ListFormClosing** element if **UseLegacyForm** is set to **false**.

2.3.2.6 ListDefinition Type

The **ListDefinition** type specifies the structure of a list (1) and its components, such as forms, views, and fields (1).

2.3.2.6.1 Schema

```xml
<xs:complexType name="ListDefinition">
    <xs:all>
      <xs:element name="MetaData" type="ListMetaDataDefinition" minOccurs="1" maxOccurs="1"
  form="qualified" />
    </xs:all>
    <xs:attribute name="AllowDeletion" type="TRUEFALSE" default="TRUE" />
    <xs:attribute name="AllowEveryoneViewItems" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="AllowMultiVote" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="AlwaysIncludeContent" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="BaseType" type="xs:int" use="required" />
    <xs:attribute name="CacheSchema" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Catalog" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DefaultItemOpen" type="xs:int" default="0" />
    <xs:attribute name="Description" type="xs:string" use="required" />
    <xs:attribute name="Direction" type="xs:int" use="required" />
    <xs:attribute name="DisableAttachments" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DisableDeployingList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DisableDeployWithDependentList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DisallowContentTypes" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DontSaveInTemplate" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DraftVersionVisibility" type="xs:int" default="0" />
    <xs:attribute name="EmailAssignTo" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableContentTypes" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableMinorVersions" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnablePeopleSelector" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableResourceSelector" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableThumbnails" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EventSinkAssembly" type="AssemblyStrongName" />
    <xs:attribute name="EventSinkClass" type="AssemblyClass" />
    <xs:attribute name="EventSinkData" type="String255Chars" />
    <xs:attribute name="FeatureId" type="UniqueIdentifierWithBraces" />
    <xs:attribute name="FolderCreation" type="TRUEFALSE" default="TRUE" />
    <xs:attribute name="ForceCheckout" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="HiddenList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="IsApplicationList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="MajorVersionLimit" type="IntNonNegative" />
    <xs:attribute name="MajorWithMinorVersionsLimit" type="IntNonNegative" />
    <xs:attribute name="ModerationType" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="MultipleMtgDataList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="MustSaveRootFiles" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Name" type="xs:string" />
    <xs:attribute name="OrderedList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="PrivateList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="PublicList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="RestrictedTemplate" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="RootWebOnly" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="ServerTemplate" type="xs:int" />
    <xs:attribute name="SuppressNameDisplay" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="ThumbnailSize" type="xs:int" default="0" />
    <xs:attribute name="Title" type="xs:string" use="required" />
    <xs:attribute name="Url" type="RelativeUrl" />
    <xs:attribute name="Version" type="xs:int" />
```

```
    <xs:attribute name="VersioningEnabled" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="WebImageHeight" type="xs:int" default="0" />
    <xs:attribute name="WebImageWidth" type="xs:int" default="0" />
</xs:complexType>
```

2.3.2.6.2 Attributes

AllowDeletion: Specifies whether this list can be deleted—for example, whether the list is crucial to the functioning of the containing site (2) or **site collection**. See also flag LP_UNDELETABLELIST (0x0000000000000004) in [MS-WSSFO2] section 2.2.2.5.

AllowEveryoneViewItems: Specifies whether list items in this list are visible to anyone who has access to the list itself. This setting is useful for shared resources, such as the master page gallery, where one page can be used throughout a site collection in **security scopes** with varying permissions. See also flag LP_ALLOWEVERYONEVIEWITEMS (0x0000000002000000) in [MS-WSSFO2] section 2.2.2.5.

AllowMultiVote: If this list is a survey, specifies whether to grant multiple responses to a user, rather than restricting the user to a single response. The reader MUST ignore this attribute unless the **ServerTemplate** attribute is set to 102. See also flag LP_ALLOWMULTIVOTE (0x0000000000000800) in [MS-WSSFO2] section 2.2.2.5.

AlwaysIncludeContent: Specifies whether data from this list MUST always be included when it is saved as a list server template, even if not otherwise requested. See also flag LP_ALWAYSINCLUDECONTENT (0x0000001000000000) in [MS-WSSFO2] section 2.2.2.5.

BaseType: Base type of the list as specified in section 2.3.1.1.

CacheSchema: Specifies whether this list can have its schema cached in memory when possible, rather than retrieving the schema every time that the list is accessed. See also flag LP_CACHESCHEMA (0x0000000200000000) in [MS-WSSFO2] section 2.2.2.5.

Catalog: Specifies whether this list is a catalog—for example, a Web Part gallery, master page gallery, and so on. See also flag LP_CATALOGLIST (0x0000000000000010) in [MS-WSSFO2] section 2.2.2.5.

DefaultItemOpen: Specifies whether applications that generate server transformations of list items in this list can open the list item in a browser, rather than in a separate client-side application. This attribute SHOULD be set to zero or 1. The reader MUST accept any integer, but MUST treat all values except 1 as zero. A value of 1 indicates that the flag 0x0000000010000000 is set. See also flag LP_DEFAULTITEMOPEN (0x0000000010000000) in [MS-WSSFO2] section 2.2.2.5.

Description: Textual description of the list.

Direction: Direction for displaying text. A writer SHOULD set this to zero to inherit the direction from a parent site (2), 1 to set the direction as left-to-right, or 2 to set the direction as right-to-left. The reader MUST interpret other values as zero.

DisableAttachments: Specifies whether attachments on list items are disabled. See also flag LP_DISABLEATTACHMENTS (0x0000000000000008) in [MS-WSSFO2] section 2.2.2.5.

DisableDeployingList: Specifies whether this list is exported as part of a migration package. See also flag LP_DISABLEDEPLOYINGLIST (0x0000000100000000) in [MS-WSSFO2] section 2.2.2.5.

DisableDeployWithDependentList: Specifies whether this list is automatically exported when exporting a list that references it. See also flag LP_DISABLEDEPLOYWITHDEPENDENTLIST (0x0000000008000000) in [MS-WSSFO2] section 2.2.2.5.

DisallowContentTypes: Specifies whether content type manipulation is disabled on this list. See also flag LP_DISALLOWCONTENTTYPES (0x0000002000000000) in [MS-WSSFO2] section 2.2.2.5.

DontSaveInTemplate: Specifies whether this list is serialized when saving this site (2) as a site template. See also flag LP_DONTSAVEINTEMPLATE (0x0000000000002000) in [MS-WSSFO2] section 2.2.2.5.

DraftVersionVisibility: Specifies the rights required to see drafts. The following table describes possible values.

Value	Description
1	Requires edit right to see drafts. See LP_MINORAUTHOR (0x0000000000100000) [MS-WSSFO2] section 2.2.2.5.
2	Requires approval right to see drafts. See LP_MINORAPPROVER (0x0000000000200000) in [MS-WSSFO2] section 2.2.2.5.
Other values	Requires read right to see drafts.

EmailAssignTo: Specifies whether this list sends alerts when a list item is assigned to a user. See also flag LP_ENABLEASSIGNTOEMAIL (0x0000000000000040) in [MS-WSSFO2] section 2.2.2.5.

EnableContentTypes: Specifies whether a user interface (UI) for manipulating multiple content types—for example, a list that contains both announcements and tasks is available. See also flag LP_ENABLECONTENTTYPES (0x0000000000400000) in [MS-WSSFO2] section 2.2.2.5.

EnableMinorVersions: Specifies whether this list supports creation of minor versions on item revisions. See also flag LP_MINORVERSIONENABLED (0x0000000000080000) in [MS-WSSFO2] section 2.2.2.5. The reader MUST ignore this setting when **VersioningEnabled** is set to **false**.

EnableThumbnails: Specifies whether document parsers in this list generate thumbnail files that correspond to documents that are saved to this list. This attribute MUST be ignored for lists that are not document libraries. See also flag LP_ENABLETHUMBNAILS (0x0000000001000000) in [MS-WSSFO2] section 2.2.2.5.

EnablePeopleSelector: Specifies whether a UI for adding users is available in lists (1) whose **ServerTemplate** attribute is set to 106. See also flag LP_ENABLEPEOPLESELECTOR (0x0000080000000000) in [MS-WSSFO2] section 2.2.2.5

EnableResourceSelector: Specifies whether a UI for adding resources is available in lists (1) whose **ServerTemplate** attribute is set to 106. See also flag LP_ENABLERESOURCESELECTOR (0x0000200000000000) in [MS-WSSFO2] section 2.2.2.5

EventSinkAssembly: Specifies a .NET **assembly** strong name that contains an implementation of additional event behavior for a list. See [MSDN-SHPTSDK] for information about implementation-specific details of event-sink implementation.

EventSinkClass: Specifies a .NET fully qualified class name that contains an implementation of additional event behavior for a list. See [MSDN-SHPTSDK] for information about implementation-specific details of event-sink implementation.

EventSinkData: Optional additional properties or data for an **event handler** for the list.

FeatureId: Identifier of a feature associated with the underlying list definition.

FolderCreation: Specifies whether creation of folders is blocked in this list. See also flag LP_DISABLEFOLDERS (0x0000000020000000) in [MS-WSSFO2] section 2.2.2.5.

ForceCheckout: Specifies whether this document library requires the user to check out documents before modifying them. See also flag LP_FORCECHECKOUT (0x0000000000040000) in [MS-WSSFO2] section 2.2.2.5. The reader MUST ignore this attribute unless the **ServerTemplate** attribute is set to 101.

HiddenList: Specifies whether this list is hidden from enumeration functions. This is intended for lists that implement the infrastructure for an application. See also flag LP_HIDDENLIST (0x0000000000000100) in [MS-WSSFO2] section 2.2.2.5.

IsApplicationList: Specifies whether the list implements the infrastructure for an application. See also flag LP_ISAPPLICATIONLIST (0x0010000000000000) in [MS-WSSFO2] section 2.2.2.5.

MajorVersionLimit: Specifies the number of **major versions** to keep per item. The reader MUST ignore this setting when **VersioningEnabled** is set to **false**.

MajorWithMinorVersionsLimit: Specifies the number of minor versions to keep per major version of an item. The reader MUST ignore this setting when **VersioningEnabled** is set to **false**. The reader MUST also ignore this setting when **EnableMinorVersions** is set to **false** and **ModerationType** is set to **false**.

ModerationType: Specifies whether this list has moderation enabled, requiring an approval process when content is created or modified. See also flag LP_MODERATEDLIST (0x0000000000000400) in [MS-WSSFO2] section 2.2.2.5.

MultipleMtgDataList: Specifies whether this list is associated with a site (2) that uses the site template of the Meeting Workspace site (2) and contains data scoped to each instance of a recurring meeting. See also flag LP_MULTIPLEMTGDATALIST (0x0000000000000020) in [MS-WSSFO2] section 2.2.2.5.

MustSaveRootFiles: When a list server template is created for this list, specifies whether documents in the root of the list can also be serialized. See also flag LP_MUSTSAVEROOTFILES (0x0000000000008000) in [MS-WSSFO2] section 2.2.2.5.

Name: Name for the list. This value is the same as the list identifier.

OrderedList: Specifies whether this list is an ordered list—for example, a Links list, and supports ordering and reordering of its items. See also flag LP_ORDEREDLIST (0x0000000000000001) in [MS-WSSFO2] section 2.2.2.5.

PrivateList: Specifies whether this is a private list. When a list template based on this list is created, the new list can be given an access control list so that only its owner and administrators can access the list. See also flag LP_PRIVATELIST (0x0000000000020000) in [MS-WSSFO2] section 2.2.2.5.

PublicList: Specifies whether this list is a public list. See also flag LP_PUBLICLIST (0x0000000000000002) in [MS-WSSFO2] section 2.2.2.5.

RestrictedTemplate: Specifies whether this list restricts view functionality, such as the datasheet view and views involving Web Part to Web Part connections. See also flag LP_RESTRICTEDTEMPLATELIST (0x0000000040000000) in [MS-WSSFO2] section 2.2.2.5.

RootWebOnly: Specifies whether the list server template for this list can be instantiated only in the root site (2) of the site collection. See also flag LP_ROOTWEBONLY (0x0000000000004000) in [MS-WSSFO2] section 2.2.2.5.

ServerTemplate: The value corresponding to the template that the list is based on. See [MS-WSSFO3] section 2.2.1.2.12 for a list of reserved values. Reader MUST infer the value from the **BaseType** attribute if not present. The following table describes the ServerTemplate values inferred from the values of BaseType.

BaseType	Inferred ServerTemplate value
0 (BASETYPE_GENERIC_LIST)	100 (LISTTEMPLATE_GENERIC_LIST)
1 (BASETYPE_DOCUMENT_LIBRARY)	101 (LISTTEMPLATE_DOCUMENT_LIBRARY)
3 (BASETYPE_DISCUSSION)	108 (LISTTEMPLATE_DISCUSSION)
4 (BASETYPE_SURVEY)	102 (LISTTEMPLATE_SURVEY)
5 (BASETYPE_ISSUE)	1100 (LISTTEMPLATE_ISSUE_TRACKING)

The writer MUST include this attribute for any **BaseType** not mentioned and SHOULD include it even if it would be inferred.

SuppressNameDisplay: Specifies whether this list uses the value of each field's **ForcedDisplay** attribute when presenting data from that field (1). This is commonly used in anonymous surveys to display common placeholder text wherever the respondent's name would normally appear. See also flag LP_USEFORCEDDISPLAY (0x0000000000001000) in [MS-WSSFO2] section 2.2.2.5.

ThumbnailSize: Specifies the size, in pixels, of a bounding rectangle for server-generated thumbnails. The writer SHOULD omit this attribute unless the **ServerTemplate** is set to 109, which specifies an image library list. If the **ServerTemplate** attribute is set to 109, the writer MUST specify a nonzero value. The reader MUST ignore this unless the **ServerTemplate** attribute is set to 109.

Title: A user-recognizable title for the list.

Url: URL of the list. The writer SHOULD include it<2>.

Version: Current version of the list. The writer MUST increment the value by 1 each time the list definition is changed. The reader MUST ignore this attribute.

VersioningEnabled: See flag LP_VERSIONINGENABLED (0x0000000000000080) in [MS-WSSFO2] section 2.2.2.5.

WebImageHeight: Specifies the height of a display image in an image library list. Like **ThumbnailSize**, the reader SHOULD ignore this, and the writer SHOULD omit this unless the **ServerTemplate** attribute is set to 109. The writer MUST specify a nonzero value if the **ServerTemplate** is set to 109.

WebImageWidth: Specifies the width of a display image in an image library list. Like **ThumbnailSize**, the reader SHOULD ignore this, and the writer SHOULD omit this unless the **ServerTemplate** attribute is set to 109. The writer MUST specify a nonzero value if the **ServerTemplate** is set to 109.

Release: July 31, 2014

2.3.2.6.3 Child Elements

MetaData: Contains definitions of views, fields (1), forms, and other components for this list.

2.3.2.7 ListFormSet Type

The **ListFormSet** type is the overall container for list forms that are being used in the current list.

2.3.2.7.1 Schema

```
<xs:complexType name="ListFormSet">
  <xs:sequence>
    <xs:element name="Form" type="FormDefinition" minOccurs="0" maxOccurs="4" />
  </xs:sequence>
</xs:complexType>
```

2.3.2.7.2 Attributes

None.

2.3.2.7.3 Child Elements

Form: Definition of a form for this list.

2.3.2.8 ListMetaDataDefinition Type

The **ListMetaDataDefinition** type contains elements used to define the structure of a list.

2.3.2.8.1 Schema

```
<xs:complexType name="ListMetaDataDefinition">
  <xs:all>
    <xs:element name="ContentTypes" type="ContentTypeReferences" minOccurs="0"
maxOccurs="1" />
    <xs:element name="Default" type="ListMetaDataDefault" minOccurs="0" maxOccurs="1" />
    <xs:element name="DefaultDescription" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="DocumentLibraryTemplate" type="xs:string" minOccurs="0" maxOccurs="1"
/>
    <xs:element name="Fields" type="FieldDefinitions" minOccurs="0" maxOccurs="1" />
    <xs:element name="Forms" type="ListFormSet" minOccurs="0" maxOccurs="1" />
    <xs:element name="Security" type="ListSecurity" minOccurs="0" maxOccurs="1" />
    <xs:element name="Toolbar" type="ToolbarDefinition" minOccurs="0" maxOccurs="1" />
    <xs:element name="Validation" minOccurs="0" maxOccurs="1">
      <xs:complexType>
        <xs:sequence>
          <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
        </xs:sequence>
        <xs:anyAttribute processContents="skip" />
      </xs:complexType>
    </xs:element>
    <xs:element name="Views" type="ViewDefinitions" minOccurs="0" maxOccurs="1" />
  </xs:all>
</xs:complexType>
```

2.3.2.8.2 Attributes

None.

2.3.2.8.3 Child Elements

ContentTypes: Specifies a set of content types associated with the list.

Default: Specifies default forms for a list.

DefaultDescription: Sets the default description used to summarize this list.

DocumentLibraryTemplate: Specifies the URL of a document to use as a template when new documents are created in the document library. The reader MUST ignore this attribute unless the **ServerTemplate** attribute is set to 101.

Fields: Specifies a collection of fields (1) that comprise the schema of the list.

Forms: Specifies the forms that are associated with the list.

Security: Specifies special security constraints on the list.

Toolbar: Specifies a rendering for a toolbar for the list.

Validation: The implementation-specific XML that specifies the validation criteria to be used for items in this list (1).

Views: Specifies a set of views associated with this list.

2.3.2.9 FieldDefinitions Type

The **FieldDefinitions** type contains a collection of zero or more fields (1).

2.3.2.9.1 Schema

```
<xs:complexType name="FieldDefinitions">
  <xs:sequence>
    <xs:element name="Field" type="FieldDefinition" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.3.2.9.2 Attribute

None.

2.3.2.9.3 Child Elements

Field: Contains a definition of a field (1), as described in [MS-WSSFO3] section 2.2.7.3.3 and in [MS-WSSFO2] section 2.2.8.3.3.

2.3.2.10 ListMetaDataDefault Type

2.3.2.10.1 Schema

```
<xs:complexType name="ListMetaDataDefault">
```

```
   <xs:sequence>
     <xs:element name="Forms" type="ListFormSet" />
   </xs:sequence>
</xs:complexType>
```

2.3.2.10.2 Attributes

None.

2.3.2.10.3 Child Elements

Forms: Specifies default forms for a list.

2.3.2.11 ListSecurity Type

The **ListSecurity** type specifies the security information of a list definition.

2.3.2.11.1 Schema

```
 <xs:complexType name="ListSecurity">
  <xs:all>
    <xs:element name="ReadSecurity" type="xs:int" minOccurs="0" maxOccurs="1" />
    <xs:element name="WriteSecurity" type="xs:int" minOccurs="0" maxOccurs="1" />
    <xs:element name="SchemaSecurity" type="xs:int" minOccurs="0" maxOccurs="1" />
  </xs:all>
</xs:complexType>
```

2.3.2.11.2 Attributes

None.

2.3.2.11.3 Child Elements

ReadSecurity: Specifies an additional security restriction to read items in the list. The following table describes possible values.

Value	Description
1	No additional restriction.
2	Each item in the list is visible only to the item's author and list administrators.

WriteSecurity: Specifies an additional security restriction to update items in the list. The following table describes possible values.

Value	Description
1	No additional restriction.
2	Each item in the list can be changed only by the item's author and list administrators.
4	Each item in the list can be changed only by the list administrators.

SchemaSecurity: The server MUST set this element to zero. The reader MUST ignore it.

2.3.2.12   ListTemplateDefinitions Type

The **ListTemplateDefinitions** type is the container for a set of list templates for the site (2).

2.3.2.12.1   Schema

```
<xs:complexType name="ListTemplateDefinitions" mixed="true">
  <xs:sequence>
    <xs:element name="ListTemplate" type="ListTemplateDefinition" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.3.2.13   ListTemplateDefinition Type

The **ListTemplateDefinition** type specifies a template definition to create new lists of a specified type.

2.3.2.13.1   Schema

```
<xs:complexType name="ListTemplateDefinition">
  <xs:attribute name="AllowDeletion" type="TRUEFALSE" default="TRUE" />
  <xs:attribute name="AllowEveryoneViewItems" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="AlwaysIncludeContent" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="BaseType" type="ListTemplateBaseType" use="required" />
  <xs:attribute name="CacheSchema" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="Catalog" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="Category" type="ListTemplateCategoryType" />
  <xs:attribute name="Description" type="xs:string" />
  <xs:attribute name="DisableAttachments" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="DisallowContentTypes" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="DisplayName" type="xs:string" />
  <xs:attribute name="DocumentAsEnclosure" type="TRUEFALSE" default="FALSE"/>
  <xs:attribute name="DocumentTemplate" type="xs:int" />
  <xs:attribute name="DontSaveInTemplate" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="DraftVersionVisibility" type="xs:int" default="0" />
  <xs:attribute name="EditPage" type="xs:string" />
  <xs:attribute name="EmailAssignTo" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="EnableContentTypes" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="EnableMinorVersions" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="EnablePeopleSelector" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="EnableResourceSelector" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="EnableThumbnails" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="FeatureId"
 type="UniqueIdentifierWithOrWithoutBracesWithOrWithoutDashes" />
  <xs:attribute name="FolderCreation" type="TRUEFALSE" default="TRUE" />
  <xs:attribute name="ForceCheckout" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="Hidden" type="TRUEFALSE" default="FALSE"/>
  <xs:attribute name="HiddenList" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="Image" type="RelativeUrl" />
  <xs:attribute name="MajorVersionLimit" type="IntNonNegative" use="optional" />
  <xs:attribute name="MajorWithMinorVersionsLimit" type="IntNonNegative" use="optional" />
  <xs:attribute name="ModeratedList" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="MultipleMtgDataList" type="TRUEFALSE" default="TRUE" />
  <xs:attribute name="MustSaveRootFiles" type="TRUEFALSE" default="FALSE" />
```

```
            <xs:attribute name="Name" type="xs:string" />
            <xs:attribute name="NewPage" type="xs:string" />
            <xs:attribute name="NoCrawl" type="TRUEFALSE" default="FALSE"  />
            <xs:attribute name="OnQuickLaunch" type="TRUEFALSE" />
            <xs:attribute name="OrderedList" type="TRUEFALSE" default="FALSE" />
            <xs:attribute name="Path" type="xs:string " />
            <xs:attribute name="PrivateList" type="TRUEFALSE" default="FALSE" />
            <xs:attribute name="PublicList" type="TRUEFALSE" default="FALSE" />
            <xs:attribute name="RootWebOnly" type="TRUEFALSE" default="FALSE" />
            <xs:attribute name="SecurityBits" type="xs:string" />
            <xs:attribute name="SetupPath" type="RelativeFilePath" />
            <xs:attribute name="Sequence" type="xs:int" />
            <xs:attribute name="SyncType" type="xs:string" />
            <xs:attribute name="ThumbnailSize" type="IntNonNegative" default="0" />
            <xs:attribute name="Type" type="xs:int" use="required"/>
            <xs:attribute name="Unique" type="TRUEFALSE" default="FALSE" />
            <xs:attribute name="UseRootFolderForNavigation" type="TRUEFALSE" />
            <xs:attribute name="VersioningEnabled" type="TRUEFALSE" default="FALSE" />
            <xs:attribute name="WebImageHeight" type="IntNonNegative"  default="0" />
            <xs:attribute name="WebImageWidth" type="IntNonNegative"   default="0" />
        </xs:complexType>
```

2.3.2.13.2   Attributes

AllowDeletion: Specifies the value of the **AllowDeletion** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

AllowEveryoneViewItems: Specifies the value of the **AllowEveryoneViewItems** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

AlwaysIncludeContent: Specifies the value of the **AlwaysIncludeContent** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

BaseType: Base type of the list as specified in section 2.3.1.1.

CacheSchema: Specifies the value of the **CacheSchema** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

Catalog: Specifies the value of the **Catalog** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

Category: Category with which to associate lists (1) created through the list definition. Possible values MUST be one of the values specified in **ListTemplateCategory Type** (section 2.3.1.6). A reader MUST treat an unknown value as **Custom Lists**.

Description: Text description of the template.

DisableAttachments: Specifies the value of the **DisableAttachments** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

DisallowContentTypes: Specifies the value of the **DisallowContentTypes** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

DisplayName: **Friendly name** of the template.

DocumentAsEnclosure: If **true**, the **RSS items** for the list include the enclosure sub-element as specified in [RSS2.0]

DocumentTemplate: **Document template** for a document library. A reader SHOULD ignore this value if **BaseType** is not set to 1. A writer SHOULD NOT write this attribute<3>.

DontSaveInTemplate: Value of the **DontSaveInTemplate** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

DraftVersionVisibility: Specifies the value of the **DraftVersionVisibility** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

EditPage: Name of a custom form (1) to use as the page for editing the properties of the list created from this template.

EmailAssignTo: Specifies the value of the **EmailAssignTo** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

EnableContentTypes: Specifies the value of the **EnableContentTypes** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

EnableMinorVersions: Specifies the value of the **EnableMinorVersions** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). A reader MUST ignore this value if the **BaseType** is not 1.

EnablePeopleSelector: Specifies the value of the **EnablePeopleSelector** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

EnableResourceSelector: Specifies the value of the **EnableResourceSelector** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

EnableThumbnails: Specifies the value of the **EnableThumbnails** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

FeatureId: Identifies the **feature** with which the list template is associated.

FolderCreation: Specifies the value of the **FolderCreation** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

ForceCheckout: Specifies the value of the **ForceCheckout** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). A reader SHOULD ignore this value unless the **BaseType** is set to 1.

Hidden: If **true**, the list template is hidden in UIs that let users create new lists.

HiddenList: Specifies the value of the **HiddenList** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

Image: URL that identifies the icon used to represent the list.

MajorVersionLimit: Specifies the value of the **MajorVersionLimit** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). A reader MUST ignore this value when **VersioningEnabled** is set to **false**.

MajorWithMinorVersionsLimit: Specifies the value of the **DisableAttachments** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). A reader MUST ignore this value when **VersioningEnabled** is set to **false**.

ModeratedList: Specifies whether the list template is a moderated list.

MultipleMtgDataList: Specifies the value of the **MultipleMtgDataList** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

MustSaveRootFiles: Specifies the value of the **MustSaveRootFiles** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

Name: Field internal name of the template.

NewPage: Name of a custom form (1) to use as the page for creating a new list of this template.

NoCrawl: TRUE to specify that the list is not visible in search results; otherwise, FALSE.

OnQuickLaunch: If **true**, lists created from this template MUST be placed in the left navigational area.

OrderedList: Specifies the value of the **OrderedList** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

PrivateList: Specifies the value of the **PrivateList** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

PublicList: Specifies the value of the **PublicList** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

RootWebOnly: Specifies the value of the **RootWebOnly** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

SecurityBits: Specifies the item-level permissions in the list for users with sufficient permission to read or edit list items. The value MUST be a two-digit string. The first digit in the string controls the read access as defined by the **ReadSecurity** element in the **ListSecurity Type** (section 2.3.2.11), whereas the second digit in the string controls the edit access as defined by the **WriteSecurity** element in **ListSecurity Type** (section 2.3.2.11).

SetupPath: Source file path to the ghosted document on the front-end Web server that specifies this list template. This path MUST be relative to the application root path.

Sequence: Specifies the ordering of this list template when present in a list.

SyncType: Specifies a short-name of the **Type** of this list template.

ThumbnailSize: Specifies the value of the **ThumbnailSize** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). A reader MUST ignore this unless the **Type** attribute is set to 109.

Type: Unique identifier for the list definition. It MUST be of type **integer**. The value MUST be greater than zero. It MUST be unique in a feature. The following table describes possible values.

Value	Description
100	Generic list
101	Document library
102	Survey list
103	Links list
104	Announcements list
105	Contacts list

Value	Description
106	Events list
107	Tasks list
108	Discussion board
109	Picture library
110	Data sources
111	Site template gallery
113	Web Part gallery
114	List template gallery
115	XML form library
120	Custom grid for a list
200	Meeting series list
201	Meeting agenda list
202	Meeting attendees list
204	Meeting decisions list
207	Meeting objectives list
210	Meeting text box
211	Meeting things to bring list
212	Meeting workspace pages list
1100	Issue tracking

Unique: If **true**, this attribute specifies that there can be only one list of this template created in the site (2).

UseRootFolderForNavigation: If **true**, this attribute specifies that the link for the list in the left navigational area points to the root folder of the list, instead of the default view page of the list.

VersioningEnabled: Specifies the value of the **VersioningEnabled** attribute for the list. See **ListDefinition Type** (section 2.3.2.6).

WebImageHeight: Specifies the value of the **WebImageHeight** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). Like **ThumbnailSize**, a reader MUST ignore this unless the **Type** attribute is set to 109.

WebImageWidth: Specifies the value of the **WebImageWidth** attribute for the list. See **ListDefinition Type** (section 2.3.2.6). Like **ThumbnailSize**, a reader MUST ignore this unless the **Type** attribute is set to 109.

2.3.2.13.3 Child Elements

None.

2.3.2.14 RowLimitDefinition Type

The **RowLimitDefinition** type specifies a limit to the number of items that are returned with a view.

2.3.2.14.1 Schema

```
<xs:complexType name="RowLimitDefinition">
  <xs:simpleContent>
    <xs:extension base="xs:int">
      <xs:attribute name="Paged" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

2.3.2.14.2 Attributes

Paged: Specifies whether the view supports displaying more items, page by page.

2.3.2.14.3 Child Elements

Content: Specifies the number of items returned by this view. If not specified, the list schema consumer MUST return all items that meet the filter condition.

2.3.2.15 ToolbarDefinition Type

The **ToolbarDefinition** type specifies the rendering of the toolbar of a view.

2.3.2.15.1 Schema

```
<xs:complexType name="ToolbarDefinition">
  <xs:sequence>
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any" processContents="skip" />
  </xs:sequence>
  <xs:attribute name="Position" type="ToolbarPosition" />
  <xs:attribute name="Type" type="ToolbarType" />
  <xs:anyAttribute processContents="skip" />
</xs:complexType>
```

2.3.2.15.2 Child Elements

ToolbarDefinition contains HTML and markup used to render a view.

2.3.2.15.3 Attributes

Position: If specified, MUST be the set to "After" so that the toolbar appears following the view body. If not specified, the toolbar appears preceding the view body.

Type: Type of toolbar that is defined by this element. For possible values, see **ToolbarType**, section 2.3.1.8. The protocol server MUST ignore this attribute if the **ToolBarDefinition** element has content. If the **ToolBarDefinition** element has no content and **Type** is set to "None", this view has no toolbar. If **Type** is set to "FreeForm", the toolbar of the view whose **BaseViewID** is set to zero is used. Otherwise, the toolbar of the list's default view is used.

2.3.2.16 ViewDefinitions Type

The **ViewDefinitions** type specifies a collection of views that are defined for a list.

2.3.2.16.1 Schema

```
<xs:complexType name="ViewDefinitions">
  <xs:sequence>
    <xs:element name="View" type="ViewDefinition" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.3.2.16.2 Attributes

None.

2.3.2.16.3 Child Elements

View: A definition of a view for the list.

2.3.2.17 ViewDefinition Type

The **ViewDefinition** type provides a definition of a view of a list.

2.3.2.17.1 Schema

```
<xs:complexType name="ViewDefinition">
  <xs:group ref="ViewDefinitionChildElementGroup"/>
  <xs:attribute name="AggregateView" type="TRUEFALSE"  default="FALSE"/>
  <xs:attribute name="BaseViewID" type="xs:int" />
  <xs:attribute name="CssStyleSheet" type="xs:string" />
  <xs:attribute name="DefaultView" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="DisplayName" type="xs:string" />
  <xs:attribute name="FailIfEmpty" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="FileDialog" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="FPModified" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="Hidden" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="List" type="UniqueIdentifierWithoutBraces" />
  <xs:attribute name="Name" type="UniqueIdentifierWithBraces" />
  <xs:attribute name="ContentTypeID" type="ContentTypeId" />
  <xs:attribute name="OrderedView" type="TRUEFALSE" />
  <xs:attribute name="DefaultViewForContentType" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="IncludeRootFolder" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="PageType" type="xs:string" />
  <xs:attribute name="Path" type="RelativeFilePath" />
  <xs:attribute name="Personal" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="ReadOnly" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="RecurrenceRowset" type="TRUEFALSE" default="FALSE" />
  <xs:attribute name="RequiresClientIntegration" type="TRUEFALSE" default="FALSE"/>
```

```
      <xs:attribute name="RowLimit" type="xs:int" />
      <xs:attribute name="ShowHeaderUI" type="TRUEFALSE"  default="FALSE" />
      <xs:attribute name="Type" type="ViewType" default="HTML"/>
      <xs:attribute name="Url" type="RelativeUrl" />
      <xs:attribute name="UseSchemaXmlToolbar" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="WebPartOrder" type="xs:int" />
      <xs:attribute name="WebPartZoneID" type="xs:string" />
      <xs:attribute name="FreeForm" type="TRUEFALSE" />
      <xs:attribute name="ImageUrl" type="xs:string" />
      <xs:attribute name="SetupPath" type="RelativeFilePath" />
      <xs:attribute name="ToolbarTemplate" type="xs:string" />
      <xs:attribute name="MobileView" type="TRUEFALSE" default="FALSE"/>
      <xs:attribute name="MobileDefaultView" type="TRUEFALSE" />
      <xs:attribute name="MobileUrl" type="RelativeUrl" />
      <xs:attribute name="Level" type="ViewPageLevel" default="1" />
      <xs:attribute name="FrameState" type="xs:string" default="Normal" />
      <xs:attribute name="IsIncluded" type="TRUEFALSE" default="TRUE" />
      <xs:attribute name="IncludeVersions" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="HackLockWeb" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="ModerationType" type="ViewModerationType" default="" />
      <xs:attribute name="Scope" type="ViewScope" default="" />
      <xs:attribute name="Threaded" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="TabularView" type="FALSE_Case_Insensitive_Else_Anything"
default="TRUE" />
  </xs:complexType>

  <xs:group name="ViewDefinitionChildElementGroup">
    <xs:all>
      <xs:element name="PagedRowset" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="Toolbar" type="ToolbarDefinition"  minOccurs="0" maxOccurs="1" />
      <xs:element name="Query" type="CamlQueryRoot" minOccurs="0" maxOccurs="1" />
      <xs:element name="ViewFields" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="FieldRef" type="FieldRefDefinitionView" minOccurs="0"
maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GroupByHeader" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="GroupByFooter" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
```

```xml
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ViewHeader" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ViewBody" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ViewFooter" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="RowLimitExceeded" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ViewEmpty" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="PagedRecurrenceRowset" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
```

```xml
        </xs:element>
        <xs:element name="PagedClientCallbackRowset" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="Aggregations" type="AggregationsDefinition" minOccurs="0"
maxOccurs="1" />
        <xs:element name="OpenApplicationExtension" type="xs:string" minOccurs="0"
maxOccurs="1" />
        <xs:element name="RowLimit" type="RowLimitDefinition" minOccurs="0" maxOccurs="1"
default="2147483647" />
        <xs:element name="Mobile" type="MobileViewDefinition" minOccurs="0" maxOccurs="1" />
        <xs:element name="ViewStyle" type="ViewStyleReference" minOccurs="0" maxOccurs="1" />
        <xs:element name="CalendarSettings" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="CalendarViewStyles" type="CalendarViewStylesDefinition" minOccurs="0"
maxOccurs="1" />
        <xs:element name="ViewBidiHeader" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="Script" minOccurs="0" maxOccurs="1" mixed="true">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ViewData" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="FieldRef" type="FieldRefDefinitionViewData" minOccurs="3"
maxOccurs="5" />
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="Formats" type="ViewFormatDefinitions" minOccurs="0" maxOccurs="1" />
        <xs:element name="InlineEdit" type="TRUE_If_Present" minOccurs="0" maxOccurs="1" />
        <xs:element name="ProjectedFields" type="ProjectedFieldsDefinitionType" minOccurs="0"
maxOccurs="1" />
        <xs:element name="Joins" type="ListJoinsDefinitionType" minOccurs="0" maxOccurs="1" />
```

```
      <xs:element name="Method" type="ViewMethodDefinition" minOccurs="0" maxOccurs="1" />
      <xs:element name="ParameterBindings" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="Xsl" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="XslLink" minOccurs="0" maxOccurs="1" mixed="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
       </xs:element>
      <xs:element name="JS" minOccurs="0" maxOccurs="1" mixed="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="JSLink" minOccurs="0" maxOccurs="1" mixed="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
    </xs:all>
  </xs:group>
```

2.3.2.17.2 Attributes

Name: Internal identifier of the list view Web Part.

Level: Publishing level of the page that hosts the view.

DisplayName: Display name of the view.

Type: Type of the view.

BaseViewID: Identifier of the **base view** for the view.

SetupPath: Path to the ghosted document on the front-end Web server.

Path: Source path to the ghosted document. If the **SetupPath** attribute is specified, the reader MUST ignore this attribute and use the value of **SetupPath**.

List: Identifier of the list for the view.

WebPartOrder: Render order of the list view Web Part in the Web Part zone.

WebPartZoneID: Identifier of the Web Part zone that contains the list view Web Part.

IsIncluded: If **true**, the list view Web Part is visible in the current page.

FrameState: MUST be set to "Normal" or "Minimized". If not specified as "Minimized", the list schema consumer MUST treat **FrameState** as set to "Normal".

ImageUrl: URL of an image that serves as an icon of the view.

ModerationType: Moderation type of the view. The list schema consumer MUST ignore this value if content approval is not enabled for the list. **ModerationType** MUST be either an empty string or one of the values specified in the **ViewModerationType** simple type, as specified in section 2.3.1.9.

Scope: Recursive scope of the view.

Hidden: If **true**, the view MUST NOT be displayed in enumerations of views of this list—for example, in a view selector UI element. See also flag 0x00000008 in [MS-WSSFO2] section 2.2.2.12.

ReadOnly: If **true**, the view is read-only, and implementations MUST NOT grant any modifications to its properties. See also flag 0x00000020 in [MS-WSSFO2] section 2.2.2.12.

RecurrenceRowset: If **true**, the view expands recurring events. See also flag 0x00002000 in [MS-WSSFO2] section 2.2.2.12.

RequiresClientIntegration: If **true**, the view MUST NOT be displayed to any user who does not possess the **UseClientIntegration** right. See also flag 0x40000000 in [MS-WSSFO2] section 2.2.2.12.

ShowHeaderUI: The reader MUST ignore this attribute.

FPModified: If **true**, the view has been modified by a client application so that it might not be compatible with the Web interface for view modification. Implementations MUST restrict modifying any properties they do not parse and persist. See also flag 0x00000002 in [MS-WSSFO2] section 2.2.2.12.

Threaded: If **true**, the view is a threaded view for legacy discussion boards, such as lists with base type 3. Implementations MUST display results in a threaded fashion, and paging of results MUST be done in terms of threads, instead of by individual list items. See also flag VIEWFLAG_THREADED 0x00010000 in [MS-WSSFO2] section 2.2.2.12.

IncludeRootFolder: If **true**, the view retrieves the list item for the root folder of the view, in addition to the standard behavior of retrieving all list items contained within it. See flag 0x08000000 in [MS-WSSFO2] section 2.2.2.12.

DefaultView: Default form of the specified type for the corresponding list. See also flag 0x00100000 in [MS-WSSFO2] section 2.2.2.12.

MobileView: If **true**, the view is intended for display on mobile devices. See also flag 0x00800000 in [MS-WSSFO2] section 2.2.2.12.

MobileDefaultView: If **true**, the view is displayed as the default view of this list when a mobile view is requested. See also flag 0x01000000 in [MS-WSSFO2] section 2.2.2.12.

MobileUrl: Specifies the URL of the page hosting the list view that is suitable for mobile devices.

CssStyleSheet: Specifies a **cascading style sheet (CSS)** file to register when rendering the view.

DefaultViewForContentType: If **true**, the view is the default view presented when a view is requested for a particular content type. See also flag 0x10000000 in [MS-WSSFO2] section 2.2.2.12.

Personal: If **true**, the view is a personal view, which MUST only be displayed to the user who created the view. See flag 0x00040000 in [MS-WSSFO2] section 2.2.2.12.

OrderedView: If **true**, the view displays list items based on the item order of the list. See also flag 0x00400000 in [MS-WSSFO2] section 2.2.2.12.

IncludeVersions: If **true**, the view displays historical versions of list items. See also flag 0x02000000 in [MS-WSSFO2] section 2.2.2.12.

FailIfEmpty: If the query for this view returns no rows and this attribute is **true**, implementations of the front-end Web server MUST return an HTTP 410 error when displaying this view as part of an HTTP request, instead of displaying a normal empty view body. See [RFC2068] section 10.4.11 for the specification of HTTP 410. See also flag 0x00000040 in [MS-WSSFO2] section 2.2.2.12

HackLockWeb: This value is unused and MUST be ignored.

FreeForm: If **true**, the view presents data in a non-tabular fashion. Implementations can format results in a manner compatible with free-form presentation. See also flag 0x00000080 in [MS-WSSFO2] section 2.2.2.12.

FileDialog: If **true**, the view is suitable for being displayed in an HTML-based file navigation dialog box to client applications. See also flag 0x00000100 in [MS-WSSFO2] section 2.2.2.12.

AggregateView: If **true**, the view has functionality for aggregating data across multiple XML documents in an XML form library. See also flag 0x00000400 in [MS-WSSFO2] section 2.2.2.12.

ToolbarTemplate: Name of a pre-defined control template for the view toolbar.

ContentTypeID: Content type identifier of the view. This string specifies the identifier of the content type with which the view is associated so that the view is available only on folders of this content type.

PageType: The reader MUST ignore this attribute.

RowLimit: The reader MUST ignore this attribute.

TabularView: If **true**, the view presents data in a tabular fashion, including check boxes for manipulating list items in the view.

UseSchemaXmlToolbar: If **true**, the server MUST use the toolbar from the list definition file on the front-end Web server. Otherwise, the pre-defined toolbar template MUST be used.

Url: URL of the view.

2.3.2.17.3   Child Elements

PagedRowset: Specifies the rendering of navigation between pages. A reader MUST ignore this value if **PagedClientCallbackRowset** and **PagedRecurrenceRowset** are provided.

Query: Query of the view. See **Query Types** (section 2.2).

Toolbar: Specifies the rendering of a toolbar.

ViewFields: List of fields (1) included in this view. See **FieldRefDefinitionView Type** (section 2.3.2.19).

GroupByHeader: Specifies rendering of the header element for **GroupBy** sections.

GroupByFooter: Specifies the rendering of the footer element for **GroupBy** sections.

ViewHeader: Specifies the rendering of the header of the view.

ViewBidiHeader: Specifies the bidirectional locale header of the view. A server MUST ignore this attribute.

ViewBody: Specifies the rendering of the body of the view.

ViewFooter: Specifies the rendering the footer of the view.

ViewEmpty: Specifies the rendering of the view when the view returns no items.

PagedClientCallbackRowset: Specifies rendering of the page viewer and navigation between pages—for example, **Next** button and **Previous** button.

PagedRecurrenceRowset: Specifies rendering of the page viewer and navigation between pages— for example, **Next** button and **Previous** button.

RowLimit: Specifies the row limit for the view. See **RowLimitDefinition Type** (section 2.3.2.14). If the body of **RowLimit** is set to a number that is less than 1 or to a value that is not a number, renditions of the view MUST return all items that meet the filter condition.

Mobile: Specifies properties related to the mobile view. See **MobileViewDefinition Type** (section 2.3.2.24).

RowLimitExceeded: If this view is a paged view, specifies the rendering when the items returned exceeds the **RowLimit**.

Formats: This element and its child elements specify the format of the view.

InlineEdit: If **true**, the view has functionality for editing list items in place on the current page.

Aggregations: Contains a list of fields (1) by which the view is aggregated.

ViewStyle: Contains an identifier attribute that specifies the style of this view. The identifier MUST be an integer that uniquely identifies the view style.

OpenApplicationExtension: Specifies a hint for the kind of application to be used to edit the view. It MUST be in the form of a file extension, such as .doc. The reader can look up the preferred application for that extension and use that application to edit this view. If not specified, the server MUST present a default UI to edit the view.

ViewData: Specifies a reference to the field (1) that is used to render the calendar view or Gantt view. If the view is a calendar view or Gantt view, this MUST be specified. For other view types, it MUST be ignored.

CalendarSettings: Specifies implementation-specific settings for rendering list items in a calendar view.

CalendarViewStyles: This element and its child elements specify a calendar-specific view style for a view of type **Calendar**. If the view is a calendar view, this section MUST be specified. For other view types, it MUST be ignored.

ProjectedFields: This element and its child elements specify the list of fields to be projected from the joined lists, as specified by the **Joins** element. See **ProjectedFieldsDefinition Type** (section 2.2.2.19).

Joins: This element and its child elements specify the list of joins to be made part of the query. See **ListJoinsDefinition Type** (section 2.2.2.21).

Method: Specifies a **Finder** and the **FilterDescriptor** values to use when rendering a view of an external list. If the list is not an external list, **Method** MUST be ignored. See [MS-WSSCAP] section 2.2.5.2.

ParameterBindings: Specifies implementation-specific parameter bindings for rendering list items in the view.

Xsl: Specifies implementation-specific XSL for rendering list items in the view.

XslLink: Specifies a file with implementation-specific XSL for rendering list items in the view.

JS: Specifies the inline JavaScript used for the view.<4>

JSLink: Specifies the JavaScript files used for the view.<5>

2.3.2.18   FieldRefDefinitionViewData Type

The **FieldRefDefinitionViewData** type specifies extra fields (1) that are used to render a calendar view or a Gantt view.

2.3.2.18.1   Schema

```
<xs:complexType name="FieldRefDefinitionViewData">
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Type" type="xs:string" use="required" />
</xs:complexType>
```

2.3.2.18.2   Attributes

Name: Name of the field (1) for which the calendar view or Gantt view is used for the purpose specified by the **Type**.

Type: For a calendar view, the following table describes possible values.

Value	Description
CalendarMonthTitle	Title of a monthly calendar item.

Value	Description
CalendarWeekTitle	Title of a weekly calendar item.
CalendarDayTitle	Title of a daily calendar item.
CalendarWeekLocation	Location of a weekly calendar item.
CalendarDayLocation	Location of a daily calendar item.

For a Gantt view, the following table describes possible values.

Value	Description
GanttTitle	Title of the Gantt view item.
GanttStartDate	Start date of the Gantt view item.
GanttEndDate	End date of the Gantt view item.
GanttPercentComplete	Optional field (1) used as the completeness percentage of a weekly Gantt view item.

2.3.2.18.3   Child Elements

None.

2.3.2.19   FieldRefDefinitionView Type

The **FieldRefDefinitionView** type specifies the fields (1) to be returned for the view.

2.3.2.19.1   Schema

```
<xs:complexType name="FieldRefDefinitionView">
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Explicit" type="TRUE_If_Present" use="optional" default="FALSE"/>
</xs:complexType>
```

2.3.2.19.2   Attributes

Name: Name of the field (1) that is included in the view.

Explicit: The writer MUST specify whether the field (1) is explicitly declared in the view definition. The reader MUST ignore this attribute.

2.3.2.19.3   Child Elements

None.

2.3.2.20   ViewStyleReference Type

The **ViewStyleReference** type specifies the style of a view.

2.3.2.20.1 Schema

```
<xs:complexType name="ViewStyleReference">
  <xs:attribute name="ID" type="xs:int"  use="optional" />
</xs:complexType>
```

2.3.2.20.2 Attributes

ID: MUST correspond to an integer identifier of a view style definition, which is defined on the front-end Web server.

2.3.2.20.3 Child Elements

None.

2.3.2.21 ViewFormatDefinitions Type

The **ViewFormatDefinitions** type specifies the format information of the view.

2.3.2.21.1 Schema

```
<xs:complexType name="ViewFormatDefinitions">
  <xs:sequence>
     <xs:element name="FormatDef" type="FormatDefDefinition" minOccurs="0"
maxOccurs="unbounded" />
     <xs:element name="Format" type="FormatDefinition"  minOccurs="0" maxOccurs="unbounded"
/>
  </xs:sequence>
 </xs:complexType>
```

2.3.2.21.2 Attributes

None.

2.3.2.21.3 Child Elements

FormatDef: Specifies a format.

Format: This element and its child elements specify the format for a field (1) in the view. A client uses this to render the field (1).

2.3.2.22 FormatDefDefinition Type

The **FormatDefDefinition** type specifies a format definition.

2.3.2.22.1 Schema

```
<xs:complexType name="FormatDefDefinition">
   <xs:simpleContent>
     <xs:extension base="xs:string">
       <xs:attribute name="Type" type="xs:string" use="required" />
       <xs:attribute name="Value" type="xs:string" use="required" />
     </xs:extension>
   </xs:simpleContent>
```

```
        </xs:complexType>
```

2.3.2.22.2   Attributes

Type: Name of the **Format** property, such as "ColWidth" or "RowHeight".

Value: The value for the specified format type.

2.3.2.22.3   Child Elements

None.

2.3.2.23   FormatDefinition Type

The **FormatDefinition** type specifies format information for the field (1).

2.3.2.23.1   Schema

```
<xs:complexType name="FormatDefinition">
    <xs:sequence>
      <xs:element name="FormatDef" type="FormatDefDefinition" minOccurs="0"
maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="Name" type="xs:string" use="required" />
  </xs:complexType>
```

2.3.2.23.2   Attributes

Name: Name of a specific field (1) to which to apply the format.

2.3.2.23.3   Child Elements

FormatDef: Specifies a format.

2.3.2.24   MobileViewDefinition Type

The **MobileViewDefinition** type specifies information for the mobile view.

2.3.2.24.1   Schema

```
<xs:complexType name="MobileViewDefinition">
    <xs:attribute name="MobileSimpleViewField" type="xs:string" use="required" />
    <xs:attribute name="MobileItemLimit" type="xs:string" use="required" />
  </xs:complexType>
```

2.3.2.24.2   Attributes

MobileSimpleViewField: Specifies the name of the field to display in the simple mobile view.

MobileItemLimit: Specifies the number of items returned by the mobile view. If not specified, the view is not paged.

2.3.2.24.3 Child Elements

None.

2.4 Content Type Schema Definitions

Types in this section describe a content type in various contexts, along with its components in each context.

2.4.1 ContentTypeDefinition Type

The **ContentTypeDefinition** type specifies a content type and its associated components.

2.4.1.1 Schema

```
<xs:complexType name="ContentTypeDefinition">
  <xs:all>
    <xs:element name="Fields" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1" />
    <xs:element name="FieldRefs" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1"
/>
    <xs:element name="XmlDocuments" type="XmlDocumentDefinitionCollection" minOccurs="0"
maxOccurs="1" />
    <xs:element name="Folder" type="FolderReference" minOccurs="0" maxOccurs="1" />
    <xs:element name="DocumentTemplate" type="ContentTypeDocumentTemplateDefinition"
minOccurs="0" maxOccurs="1" />
  </xs:all>
  <xs:attribute name="ID" type="ContentTypeId" use="required" />
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Group" type="xs:string" use="optional" />
  <xs:attribute name="ReadOnly" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
  <xs:attribute name="Hidden" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
  <xs:attribute name="Description" type="xs:string" use="optional" />
  <xs:attribute name="Sealed" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
  <xs:attribute name="V2ListTemplateName" type="xs:string" use="optional"/>
  <xs:attribute name="Version" type="IntNonNegative" use="optional" default="0" />
  <xs:attribute name="FeatureId" type="UniqueIdentifierWithBraces" use="optional" />
  <xs:attribute name="Edited" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
  <xs:attribute name="ProgId" type="xs:string" use="optional" />
  <xs:attribute name="NewDocumentControl" type="xs:string" use="optional" />
  <xs:attribute name="PushDownChangedResourceFilesOnly"
type="TRUE_Case_Sensitive_Else_Anything" use="optional" default="FALSE" />
  <xs:attribute name="RequireClientRenderingOnNew" type="TRUE_Case_Sensitive_Else_Anything"
use="optional" default="TRUE" />
</xs:complexType>
```

2.4.1.2 Attributes

ID: Identifier for this content type.

Name: Name of the content type.

Group: Name of the **content type group** of this content type.

ReadOnly: Specifies whether the content type can be edited.

Hidden: Specifies whether the content type appears in the UI.

Description: Description of the content type.

Sealed: Specifies whether another content type can inherit from the current content type.

V2ListTemplateName: Specifies an additional component for field names to ensure their uniqueness.

Version: Current version of the content type. The writer MUST increment the value by 1 each time the content type definition is changed. The reader MUST ignore this attribute.

FeatureId: Specifies the feature with which this content type is associated.

Edited: The reader MUST ignore this attribute.

ProgId: Specifies a preferred application to open a **document** of this content type. This element distinguishes between applications that save files with a specified **file extension**, for example, editors for .html or .xml files.

NewDocumentControl: Specifies a preferred application to open a document of this content type.

PushDownChangedResourceFilesOnly: Specifies whether to copy only changed resource files to derived content types during a push-down operation.

RequireClientRenderingOnNew: Specifies whether new list items of this content type open in a separate client-side application.

2.4.1.3   Child Elements

Fields: Contains references to fields associated with this content type. The protocol server MUST write either **Fields** or **FieldRefs**, but not both.

FieldRefs: Contains references to fields (1) associated with this content type. The protocol server MUST write either **Fields** or **FieldRefs**, but not both.

XmlDocuments: Collection of XML documents associated with this content type, which can include forms and **event receiver** manifests.

Folder: Specifies the **resource folder** to be used by this content type.

DocumentTemplate: Specifies the document template of the content type.

2.4.2   FieldRefDefinitionCTs Type

The **FieldRefDefinitionCTs** type describes the ways in which a content type can reference fields (1) in its encompassing list.

2.4.2.1   Schema

```
<xs:complexType name="FieldRefDefinitionCTs" mixed="true" >
  <xs:sequence>
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element name="FieldRef" type="FieldRefDefinitionCT" />
      <xs:element name="Field" type="FieldDefinitionCTRemove" />
    </xs:choice>
  </xs:sequence>
```

```
    </xs:complexType>
```

2.4.2.2 Attributes

None.

2.4.2.3 Child Elements

FieldRef: Reference to a field (1) that belongs to this content type.

Field: Reference to a field (1) that was removed from this content type.

2.4.3 FieldRefDefinitionCT Type

The **FieldRefDefinitionCT** type specifies a reference to a field (1) in a content type.

2.4.3.1 Schema

```
    <xs:complexType name="FieldRefDefinitionCT">
      <xs:all>
        <xs:element name="Default" type="xs:string" minOccurs="0" maxOccurs="1" />
      </xs:all>
      <xs:attribute name="Name" type="xs:string" use="required" />
      <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
      <xs:attribute name="Required" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
  default="FALSE" />
      <xs:attribute name="Hidden" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
  default="FALSE" />
      <xs:attribute name="Customization" type="xs:string" use="optional" />
      <xs:attribute name="ShowInNewForm" type="FALSE_Case_Insensitive_Else_Anything"
  use="optional" default="TRUE" />
      <xs:attribute name="ShowInEditForm" type="FALSE_Case_Insensitive_Else_Anything"
  use="optional" default="TRUE" />
      <xs:attribute name="DisplayName" type="xs:string" use="optional" />
      <xs:attribute name="ReadOnly" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
  default="FALSE" />
      <xs:attribute name="PITarget" type="xs:string" use="optional" />
      <xs:attribute name="PrimaryPITarget" type="xs:string" use="optional" />
      <xs:attribute name="PIAttribute" type="xs:string" use="optional" />
      <xs:attribute name="PrimaryPIAttribute" type="xs:string" use="optional" />
      <xs:attribute name="Aggregation" type="xs:string" use="optional" />
      <xs:attribute name="Node" type="xs:string" use="optional" />
      <xs:attribute name="Format" type="xs:string" use="optional" />
      <xs:attribute name="NumLines" type="xs:string" default="6" />
      <xs:attribute name="Sealed" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
  default="FALSE" />
      <xs:attribute name="Sortable" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
  default="TRUE" />
      <xs:attribute name="FromBaseType" type="TRUE_Case_Insensitive_Else_Anything"
  use="optional" default="FALSE" />
      <xs:attribute name="Filterable" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
  default="TRUE" />
      <xs:attribute name="FilterableNoRecurrence" type="TRUE_Case_Sensitive_Else_Anything"
  use="optional" default="FALSE" />
      <xs:attribute name="ShowInDisplayForm" use="optional" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="ShowInFileDlg" type="FALSE_Case_Insensitive_Else_Anything"
  use="optional" default="TRUE" />
```

```
      <xs:attribute name="ShowInListSettings" use="optional" type="TRUEFALSE" default="FALSE"
  />
      <xs:attribute name="Description" type="xs:string" use="optional" />
    </xs:complexType>
```

2.4.3.2 Attributes

See attributes of **FieldRefDefinitionField** in [MS-WSSFO2] section 2.2.8.3.9, and **FieldDefinition**
in [MS-WSSFO2] section 2.2.8.3.3. The reader MUST override the **Required**, **Hidden**,
Customization, **ShowInNewForm**, **ShowInEditForm**, **DisplayName**, **ReadOnly**, **PITarget**,
PrimaryPITarget, **PIAttribute**, **PrimaryPIAttribute**, **Aggregation**, **Node**, and **Format**
attributes that are defined in the field definition.

2.4.3.3 Child Elements

Default: See child elements of **FieldRefDefinitionField** in [MS-WSSFO2] section 2.2.8.3.9, and
FieldDefinition in [MS-WSSFO2] section 2.2.8.3.3.

2.4.4 ContentTypeDocumentTemplateDefinition Type

The **ContentTypeDocumentTemplateDefinition** type is a container for the document template of
a content type.

2.4.4.1 Schema

```
    <xs:complexType name="ContentTypeDocumentTemplateDefinition">
      <xs:simpleContent>
        <xs:extension base="xs:string">
          <xs:attribute name="TargetName" type="RelativeUrl" use="required"/>
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>
```

2.4.4.2 Attribute

TargetName: URL of the document template file associated with this content type.

2.4.4.3 Child Elements

None.

2.4.5 ContentTypeReference Type

The **ContentTypeReference** type is a container for a reference to a content type.

2.4.5.1 Schema

```
    <xs:complexType name="ContentTypeReference">
      <xs:all>
        <xs:element name="Folder" type="FolderReference" minOccurs="0" maxOccurs="1" />
        <xs:element name="DocumentTemplate" type="ContentTypeDocumentTemplateDefinition"
  minOccurs="0" maxOccurs="1" />
      </xs:all>
```

```
        <xs:attribute name="ID" type="ContentTypeId" use="required" />
        <xs:attribute name="Edited" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
    default="FALSE" />
      </xs:complexType>
```

2.4.5.2 Attributes

ID: Identifier for the content type being referenced.

Edited: The reader MUST ignore this attribute.

2.4.5.3 Child Elements

Folder: Specifies a reference to the new resource folder for this content type. If it is not specified, the reader MUST read the resource folder specified in the original content type definition.

DocumentTemplate: Specifies a reference to an override document template to use for this content type. If it is not included, the reader MUST use the document template specified in the original content type schema.

2.4.6 ContentTypeReferences Type

2.4.6.1 Schema

```
    <xs:complexType name="ContentTypeReferences">
      <xs:sequence>
        <xs:choice minOccurs="0" maxOccurs="unbounded">
          <xs:element name="ContentTypeRef" type="ContentTypeReference" />
          <xs:element name="ContentType" type="ContentTypeDefinition" />
        </xs:choice>
      </xs:sequence>
    </xs:complexType>
```

2.4.6.2 Attributes

None.

2.4.6.3 Child Elements

ContentTypeRef: Specifies a reference to an existing content type.

ContentType: Specifies a definition of a new content type for the list.

2.4.7 FolderReference Type

The **FolderReference** type specifies a resource folder for a content type.

2.4.7.1 Schema

```
    <xs:complexType name="FolderReference">
      <xs:sequence />
      <xs:attribute name="TargetName" type="RelativeUrl" use="required" />
    </xs:complexType>
```

2.4.7.2 Attributes

TargetName: URL of the resource folder associated with this content type. This value MUST be relative to the content type gallery URL of the site (2) and MUST be less than three levels deep.

2.4.7.3 Child Elements

None.

2.4.8 ContentTypeDatabase Type

The **ContentTypeDatabase** type provides an overall container for content types in the **tp_ContentTypes** column as returned in the **ListMetadata** result set. See [MS-WSSFO2] section 2.2.5.12.

2.4.8.1 Schema

```
<xs:complexType name="ContentTypeDatabase">
  <xs:sequence>
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element name="ContentTypeRef" type="ContentTypeReference" />
      <xs:element name="ContentType" type="ContentTypeDefinitionTP" />
    </xs:choice>
  </xs:sequence>
</xs:complexType>
```

2.4.8.2 Attributes

None.

2.4.8.3 Child Elements

ContentTypeRef: A reference to an existing content type schema for this list.

ContentType: A content type schema for this list. If only the **ID** attribute is specified, this element specifies a reference to an existing content type that is defined as a template on the front-end Web server. If additional attributes are specified, the element is a definition of a new content type for the list.

2.4.9 ContentTypeDefinitionTP Type

The **ContentTypeDefinitionTP** type specifies a content type and its associated components. **ContentTypeDefinitionTP** has the same structure as **ContentTypeDefinition**. However, if only the **ID** attribute of **ContentTypeDefinitionTP** is specified, the content type specifies a content type schema that has been deleted.

2.4.9.1 Schema

```
<xs:complexType name="ContentTypeDefinitionTP">
  <xs:all>
    <xs:element name="Fields" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1" />
    <xs:element name="FieldRefs" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1" />
```

```
        <xs:element name="XmlDocuments" type="XmlDocumentDefinitionCollection" minOccurs="0"
maxOccurs="1" />
        <xs:element name="Folder" type="FolderReference" minOccurs="0" maxOccurs="1" />
        <xs:element name="DocumentTemplate" type="ContentTypeDocumentTemplateDefinition"
minOccurs="0" maxOccurs="1" />
    </xs:all>
    <xs:attribute name="ID" type="ContentTypeId" use="required" />
    <xs:attribute name="Name" type="xs:string" use="optional" />
    <xs:attribute name="Group" type="xs:string" use="optional" />
    <xs:attribute name="ReadOnly" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
    <xs:attribute name="Hidden" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
    <xs:attribute name="Description" type="xs:string" use="optional" />
    <xs:attribute name="Sealed" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="V2ListTemplateName" type="xs:string" use="optional"/>
    <xs:attribute name="Version" type="IntNonNegative" use="optional" default="0" />
    <xs:attribute name="FeatureId" type="UniqueIdentifierWithBraces" use="optional" />
    <xs:attribute name="Edited" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="ProgId" type="xs:string" use="optional" />
    <xs:attribute name="NewDocumentControl" type="xs:string" use="optional" />
    <xs:attribute name="PushDownChangedResourceFilesOnly"
type="TRUE_Case_Sensitive_Else_Anything" use="optional" default="FALSE" />
    <xs:attribute name="RequireClientRenderingOnNew" type="TRUE_Case_Sensitive_Else_Anything"
use="optional" default="TRUE" />
  </xs:complexType>
```

2.4.9.2 Attributes

See **ContentTypeDefinition Type** (section 2.4.1).

2.4.9.3 Child Elements

See **ContentTypeDefinition Type** (section 2.4.1).

2.4.10   FieldDefinitionCTRemove Type

The **FieldDefinitionCTRemove** type specifies a field definition that was removed from a content type schema.

2.4.10.1 Schema

```
    <xs:complexType name="FieldDefinitionCTRemove">
      <xs:complexContent>
        <xs:extension base="FieldDefinition"/>
      </xs:complexContent>
    </xs:complexType>
```

2.4.10.2 Attributes

ID: Identifier of the field definition to remove from this content type.

See **FieldDefinition** in [MS-WSSFO2] section 2.2.8.3.3.

2.4.10.3 Child Elements

See **FieldDefinition** in [MS-WSSFO2] section 2.2.8.3.3.

2.4.11 XmlDocumentDefinition Type

The **XmlDocumentDefinition** type is a container that describes a custom-extensible type associated with a content type definition.

2.4.11.1 Schema

```
<xs:complexType name="XmlDocumentDefinition" mixed="true">
  <xs:complexContent>
    <xs:restriction base="xs:anyType">
      <xs:sequence>
        <xs:any namespace="##other" minOccurs="0" maxOccurs="unbounded"
processContents="skip" />
      </xs:sequence>
      <xs:attribute name="NamespaceURI" type="xs:string" use="required" />
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

2.4.11.2 Attributes

NamespaceURI: Namespace that corresponds to the specified document.

2.4.11.3 Child Elements

The child elements of this container are vendor extensible. Well-known elements are specified in the following section.

```
<FormTemplates type="FormTemplateDefinitions"
xmlns="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms" />
<FormUrls type="FormUrlDefinitions"
xmlns="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms/url" />
<Receivers type="ReceiverDefinitionCollection"
xmlns="http://schemas.microsoft.com/sharepoint/events" />
<Namespaces type="NamespacesDefinitions" xmlns="http://schemas.microsoft.com/sharepoint" />
<PolicyDirtyBag type="PolicyDirtyBag" xmlns="microsoft.office.server.policy.changes" />
<Policy type="Policy" xmlns="office.server.policy" />
```

The following elements can be included with a content type schema and are used to specify additional functionality for a content type.

FormTemplates: **Form templates** associated with the specified content type. See **FormTemplateDefinitions Type** (section 2.5.1.3).

FormUrls: Form (1) URLs associated with the specified content type. See **FormUrlDefinitions Type** (section 2.5.1.4).

Receivers: Event receiver manifests associated with the specified content type. See **ReceiverDefinitions Type** (section 2.5.1.21).

Namespaces: XML namespace, as specified in in [XMLNS], registrations associated with the specified content type. See **NamespaceDefinitions Type** (section 2.5.1.6).

PolicyDirtyBag: Contains a list of changes made to a policy. See **PolicyDirtyBag Type** (section 2.5.1.7).

Policy: Contains information management policy. See **Policy Type** (section 2.5.1.9).

Content: Any of the preceding elements or vendor-extensible elements can have additional body text for this definition.

2.4.12 XmlDocumentDefinitionCollection Type

The **XmlDocumentDefinitionCollection** type is a container that describes additional custom documents that are associated with a content type.

2.4.12.1 Schema

```
<xs:complexType name="XmlDocumentDefinitionCollection">
  <xs:sequence>
    <xs:element name="XmlDocument" type="XmlDocumentDefinition" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.4.12.2 Attributes

None.

2.4.12.3 Child Elements

XmlDocument: An extensible type associated with this content type.

2.5 Extensible Types

2.5.1 Content Type Custom Simple Types

2.5.1.1 customXsn Type

The **customXsn** type is an extended XML element that defines a custom **Document Information Panel** template.

2.5.1.1.1 Schema

```
<xs:element name="customXsn">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="xsnLocation" type="xs:string" />
      <xs:element name="cached" type="xs:boolean" />
      <xs:element name="openByDefault" type="xs:boolean" />
      <xs:element name="xsnScope" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

2.5.1.1.2 Attributes

None.

2.5.1.1.3 Child Elements

xsnLocation: URL or **Uniform Resource Name (URN)** location of the XSN file for the custom Document Information Panel. This element MUST be empty if a content type does not have a custom Document Information Panel.

cached: MUST be set to **true** if the custom Document Information Panel generates its own layout to display the data.

openByDefault: MUST be set to **true** to always show the custom Document Information Panel solution when the document is opened and first saved for this content type.

xsnScope: Scope to which the custom Document Information Panel template applies.

2.5.1.2 FormDefinitions Type

The **FormDefinitions** type specifies a collection of form definitions associated with this content type.

2.5.1.2.1 Schema

```
<xs:complexType name="FormDefinitions">
  <xs:sequence>
    <xs:element name="Form" type="FormDefinition" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.5.1.2.2 Attributes

None.

2.5.1.2.3 Child Elements

Form A form definition.

2.5.1.3 FormTemplateDefinitions Type

The **FormTemplateDefinitions** type specifies the names of control templates for forms in a list.

2.5.1.3.1 Schema

```
<xs:complexType name="FormTemplateDefinitions" mixed="true">
  <xs:sequence>
    <xs:element name="Display" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="Edit" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="New" type="xs:string" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>
```

2.5.1.3.2   Attributes

None.

2.5.1.3.3   Child Elements

Display: Specifies a control template for the display form of an item.

Edit: Specifies a control template for the edit form of an item.

New: Specifies a control template for the new form of an item.

2.5.1.4   FormUrlDefinitions Type

The **FormUrlDefinitions** type specifies a URL for various forms in a list.

2.5.1.4.1   Schema

```
<xs:complexType name="FormUrlDefinitions">
  <xs:sequence>
    <xs:element name="Display" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="Edit" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="New" type="xs:string" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>
```

2.5.1.4.2   Attributes

None.

2.5.1.4.3   Child Elements

Display: Form tokenized URL for the display form of an item.

Edit: Form tokenized URL for the edit form of an item.

New: Form tokenized URL for the new form of an item.

A form tokenized URL MUST be processed in one of the following manners:

- If the URL starts with a slash (/), the URL MUST be treated as a **server-relative URL**.

- If the URL starts with "~sitecollection/", the server MUST prefix the form URL with the server-relative URL of the parent site collection.

- If the URL starts with "~site/", the server MUST prefix the form URL with the server-relative URL of the parent site (2).

- If the URL starts with "~list/", the server MUST prefix the form URL with the server-relative URL of the parent list.

- Otherwise, the server MUST prefix the form URL with the server-relative URL of the site (2).

2.5.1.5   NamespaceDefinition Type

The **NamespaceDefinition** type contains a registration of a namespace.

2.5.1.5.1 Schema

```
<xs:complexType name="NamespaceDefinition" mixed="true">
  <xs:attribute name="prefix" type="xs:string" use="required" />
  <xs:attribute name="value" type="xs:string" use="required" />
</xs:complexType>
```

2.5.1.5.2 Attributes

prefix: **XML namespace prefix** for the namespace registration.

value: Value of the XML namespace being registered.

2.5.1.5.3 Child Elements

None.

2.5.1.6 NamespaceDefinitions Type

The **NamespaceDefinitions** type is a container for a set of XML namespace registrations.

2.5.1.6.1 Schema

```
<xs:complexType name="NamespaceDefinitions" mixed="true">
  <xs:sequence>
    <xs:element name="Namespace" type="NamespaceDefinition" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.5.1.6.2 Attributes

None.

2.5.1.6.3 Child Elements

Namespace: A registration of an XML namespace and its associated XML namespace prefix.

2.5.1.7 PolicyDirtyBag Type

The **PolicyDirtyBag** type contains a list of changes made to a policy. For example, it tracks when a policy feature has been added or removed.

2.5.1.7.1 Schema

```
<xs:complexType name="PolicyDirtyBag">
  <xs:sequence minOccurs="0" maxOccurs="1">
    <xs:any namespace="##other" minOccurs="0" maxOccurs="unbounded" processContents="skip" />
  </xs:sequence>
</xs:complexType>
```

2.5.1.7.2   Attributes

None.

2.5.1.7.3   Child Elements

The **PolicyDirtyBag** element contains a list of changes made to a policy. Each child element is a change to one of the policy features for the policy with **featureId** corresponding to the element name. The child elements of this container are vendor extensible. Well-known elements are specified in the following schema.

```
<s:element name="Microsoft.Office.RecordsManagement.PolicyFeatures.PolicyLabel"
type="PolicyFeatureOperation" />
<s:element name="Microsoft.Office.RecordsManagement.PolicyFeatures.PolicyAudit"
type="PolicyFeatureOperation" />
<s:element name="Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration"
type="PolicyFeatureOperation" />
<s:element name="Microsoft.Office.RecordsManagement.PolicyFeatures.Barcode"
type="PolicyFeatureOperation" />
```

Each element MUST conform to the schema of the **PolicyFeatureOperation Type** (section 2.5.1.8).

2.5.1.8   PolicyFeatureOperation Type

The **PolicyFeatureOperation** type specifies a change to a policy item.

2.5.1.8.1   Schema

```
<xs:complexType name="PolicyFeatureOperation">
  <xs:attribute name="op" type="xs:string" use="required" />
</xs:complexType>
```

2.5.1.8.2   Attributes:

op: The type of change to a policy feature. The following table describes possible values.

Value	Description
Add	A policy feature is added.
Delete	A policy feature is removed.
Change	A policy feature has been changed.

2.5.1.8.3   Child Elements

None.

2.5.1.9   Policy Type

The **Policy** type represents a **policy**.

2.5.1.9.1 Schema

```
<xs:complexType name="policy">
  <xs:sequence>
    <xs:element name="Name" type="xs:string" />
    <xs:element name="Description" type="xs:string" minOccurs="0" />
    <xs:element name="Statement" type="xs:string" minOccurs="0" />
    <xs:element name="PolicyItems" minOccurs="0" >
      <xs:complexType>
        <xs:sequence>
          <xs:element name="PolicyItem" type="policyItem" minOccurs="0" maxOccurs="unbounded"
/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="id" type="UniqueIdentifierWithoutBracesOrEmpty" use="required" />
  <xs:attribute name="local" type="xs:boolean" use="required" />
</xs:complexType>
```

2.5.1.9.2 Attributes

id: Policy identifier, which MUST be empty if **local** is set to **true**. Otherwise, MUST be a GUID.

local: Specifies whether the policy is locally defined, that is, it applies only to a specific scope, in contrast to a reference to a policy defined at an implementation-specific<6> scope.

2.5.1.9.3 Child Elements

Description: Administrative description of the policy.

Name: Name of the policy.

PolicyItems: List of policy items applicable to the policy.

Statement: Textual description of applicable policies to give helpful information to users.

2.5.1.10 PolicyItem Type

The **PolicyItem** type specifies settings for a policy feature.

2.5.1.10.1 Schema

```
<xs:complexType name="policyItem">
  <xs:sequence>
    <xs:element name="Name" type="xs:string" />
    <xs:element name="Statement" type="xs:string" minOccurs="0" />
    <xs:element name="Description" type="xs:string" minOccurs="0" />
    <xs:element name="CustomData" type="customData" minOccurs="0" />
  </xs:sequence>
  <xs:attribute name="featureId" type="xs:string" use="required" />
  <xs:attribute name="BlockPreview" type="xs:boolean" />
  <xs:attribute name="UniqueId" type="xs:string" />
</xs:complexType>
```

2.5.1.10.2 Attributes

featureId: Identifier of a policy feature. This identifier is vendor extensible for implementation-specific policy features. The following table describes well-known values.

featureId	Policy feature description
Microsoft.Office.RecordsManagement.PolicyFeatures.Barcode	Generates an implementation-specific barcode image for documents.
Microsoft.Office.RecordsManagement.PolicyFeatures.PolicyLabel	Generates implementation-specific label images for documents based on their **document properties**.
Microsoft.Office.RecordsManagement.PolicyFeatures.PolicyAudit	Logs a record of user actions to an **audit log**.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration	Manages the implementation-specific retention lifecycle of content. For example, this can be used to archive and delete content according to a schedule.

BlockPreview: Reserved. MUST be set to **false** and MUST be ignored.

UniqueId: Identifier of a policy item. MUST be a GUID.

2.5.1.10.3 Child Elements

Name: Name of the policy item.

Description: Description of the policy item.

Statement: Reserved and MUST NOT be present.

CustomData: Container for additional information about the policy item.

```
<xs:complexType name="customData">
  <xs:sequence>
    <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

The child element(s) of **CustomData** are vendor extensible. The following table specifies the complex type for well-known policy features.

featureId	Complex type
Microsoft.Office.RecordsManagement.PolicyFeatures.Barcode	Barcode
Microsoft.Office.RecordsManagement.PolicyFeatures.PolicyLabel	Label
Microsoft.Office.RecordsManagement.PolicyFeatures.PolicyAudit	Audit

featureId	Complex type
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration	SHOULD<7> be a **Schedules** element as specified in **Schedules Type** (section 2.5.1.16), but MAY contain a **Data** element as specified in **PolicyDataDefinition Type** (section 2.5.1.18).

2.5.1.11   Barcode Type

The **Barcode** type specifies settings for a policy feature for generating implementation-specific barcode images for documents.

2.5.1.11.1   Schema

```
<xs:complexType name="barcode">
  <xs:sequence>
    <xs:element name="event" type="PolicyEventDefinition" minOccurs="0" maxOccurs="unbounded"
/>
  </xs:sequence>
</xs:complexType>
```

2.5.1.11.2   Attributes

None.

2.5.1.11.3   Child Elements

event: Operation that starts implementation-specific<8> generation of the barcode image.

2.5.1.12   PolicyEventDefinition Type

The **PolicyEventDefinition** type specifies the type of operation that starts generation of implementation-specific barcode or label images for a document.

2.5.1.12.1   Schema

```
<xs:complexType name="PolicyEventDefinition" >
  <xs:attribute name="type" type="xs:string" use="required" />
</xs:complexType>
```

2.5.1.12.2   Attributes

type: Operation type. The following table describes possible values.

Value	Description
Save	The operation of saving a document.
Print	The operation of printing a document.

2.5.1.12.3 Child Elements

None.

2.5.1.13 Label Type

The **Label** type specifies settings for a policy feature for generating implementation-specific label images for documents based on their document properties.

2.5.1.13.1 Schema

```
<xs:complexType name="label">
  <xs:sequence>
    <xs:element name="properties" minOccurs="0">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="width" type="xs:decimal" minOccurs="0" />
          <xs:element name="height" type="xs:decimal" minOccurs="0" />
          <xs:element name="justification" type="xs:string" minOccurs="0" />
          <xs:element name="fontstyle" type="xs:string" minOccurs="0" />
          <xs:element name="font" type="xs:string" minOccurs="0" />
          <xs:element name="fontsize" type="xs:int" minOccurs="0" />
          <xs:element name="lock" type="xs:boolean" minOccurs="0" />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="event" type="PolicyEventDefinition" minOccurs="0"
maxOccurs="unbounded" />
    <xs:element name="segment" type="PolicySegmentDefinition" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.5.1.13.2 Attributes

None.

2.5.1.13.3 Child Elements

properties: A list of document properties for generating the label image.

properties.width*:* Physical width, in inches, of the label image. This value MUST be between 0.25 and 20 inches.

properties.height: Physical height, in inches, of the label image. This value MUST be between 0.25 and 20 inches.

properties.justification: Specifies the alignment of content in the label image. The following table describes possible values.

Value	Description
Center	The content aligns to the center of the label image.
Right	The content aligns to the right of the label image.
Left	The content aligns to the left of the label image.

properties.fontstyle: Font style of the content in the label image. The following table describes possible values.

Value	Description
Regular	The font style of the content is neither bold nor italicized.
Bold	The font style of the content is bold.
Italic	The font style of the content is italicized.

properties.font: Font family name of the content in the label image.

properties.fontsize: Font size of the content in the label image.

properties.lock: Specifies whether the label image can be changed after being generated. If **true**, the label image MUST NOT be changed after it is generated. Otherwise, the label MUST be re-generated when the values of any the document properties from the **properties** list is updated.

event: Operation that starts implementation-specific<9> generation of the label image.

segment: A list of content segments from which the label image is generated.

2.5.1.14   PolicySegmentDefinition Type

The **PolicySegmentDefinition** type specifies either fixed text or a reference to a document property to include as content in a label image.

2.5.1.14.1   Schema

```
<xs:complexType name="PolicySegmentDefinition">
  <xs:attribute name="type" type="xs:string" use="required" />
</xs:complexType>
```

2.5.1.14.2   Attributes

type: Type of policy label segment. The following table describes possible values.

Value	Description
literal	The segment contains fixed text to be included in the label.
metadata	The segment contains the name of a document property to be included in the label.

2.5.1.14.3   Child Elements

None.

2.5.1.15   Audit Type

The **Audit** type specifies settings for a policy feature for logging a record of user actions to an audit log.

2.5.1.15.1 Schema

```
<xs:complexType name="audit">
  <xs:all>
    <xs:element name="Update" minOccurs="0" />
    <xs:element name="View" minOccurs="0" />
    <xs:element name="CheckInOut" minOccurs="0" />
    <xs:element name="MoveCopy" minOccurs="0" />
    <xs:element name="DeleteRestore" minOccurs="0" />
  </xs:all>
</xs:complexType>
```

2.5.1.15.2 Attributes

None.

2.5.1.15.3 Child Elements

CheckInOut: Can be any type. If present, audits check-in and check-out operations for items.

DeleteRestore: Can be any type. If present, audits deletion or restoration of items.

MoveCopy: Can be any type. If present, audits moving and copying of items.

Update: Can be any type. If present, audits updates made to items.

View: Can be any type. If present, audits any operation for opening or downloading items, viewing items in lists, or viewing item properties.

2.5.1.16 Schedules Type

The **Schedules** type specifies the retention lifecycle of content by specifying one or two **retention schedules**, each of which has one or more **retention stages**.

2.5.1.16.1 Schema

```
<xs:complexType name="Schedules">
  <xs:sequence>
    <xs:element name="Schedule" type="PolicyScheduleDefinition" minOccurs="1" />
  </xs:sequence>
  <xs:attribute name="default" type="xs:boolean" use="optional" />
  <xs:attribute name="nextStageId" type="xs:int" use="required" />
</xs:complexType>
```

2.5.1.16.2 Attributes

default: The identifier of whether to use the retention schedule with type set to "Default" for all items. The default value of this attribute is **true**. Set it to **false**, and **records** items will follow the retention schedule with type set to "Record".

nextStageId: The identifier of the next retention stage. It MUST be a positive integer that MUST NOT have been used in the **stageId** attribute of any child **Schedule.stages.data** element.

2.5.1.16.3   Child Elements

Schedule: Retention schedule. There MUST be a single **Schedule** element or two **Schedule** elements, one with **Schedule.type** set to "Default" and the other with **Schedule.type** set to "Record".

The following conditions determine the applicability of the retention schedule:

1. If there is a single **Schedule** element with **Schedule.type** set to "Default", that retention schedule is applicable to all items.

2. If there is a single **Schedule** element with **Schedule.type** set to "Record" and the **Schedules.default** attribute is set to **false**, that retention schedule is applicable to items that are records.

3. If there are two **Schedule** elements and the **Schedules.default** attribute is set to **false**, the **Schedule** element with **Schedule.type** set to "Default" applies to items that are not records, and the **Schedule** element with **Schedule.type** set to "Record" applies to items that are records.

4. If there are two **Schedule** elements and the **Schedules.default** attribute is set to **true** or not present, the **Schedule** element with type set to "Default" applies to all items.

5. All other combinations of **Schedules.default** and **Schedule.type** and number of **Schedule** elements MUST NOT be used.

2.5.1.17   PolicyScheduleDefinition Type

The **PolicyScheduleDefinition** type specifies a retention schedule. A retention schedule contains one or more retention stages. Each retention stage specifies a retention formula and a retention action. The protocol server performs the retention action on an implementation-specific schedule determined using the retention formula.

2.5.1.17.1   Schema

```
<xs:complexType name="PolicyScheduleDefinition">
  <xs:sequence>
    <xs:element name="stages">
      <xs:complexType>
        <xs:sequence>
          <xs:element maxOccurs="unbounded" name="data" type="PolicyDataDefinition" />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="type" type="xs:string" use="required" />
</xs:complexType>
```

2.5.1.17.2   Attributes

type: Type of retention schedule. The following table describes possible values.

Value	Description
Default	The retention schedule applies to all items if the **Schedules** type does not also have a child

Value	Description
	Schedule element with **type** set to "Record". Otherwise, it applies to items that are not records.
Record	The retention schedule applies to record items.

2.5.1.17.3   Child Elements

data: A retention stage.

2.5.1.18   PolicyDataDefinition Type

The **PolicyDataDefinition** type specifies a retention stage.

2.5.1.18.1   Schema

```
<xs:complexType name="PolicyDataDefinition">
  <xs:sequence>
    <xs:element name="formula" type="PolicyFormulaDefinition" />
    <xs:element name="action" type="PolicyActionDefinition" />
  </xs:sequence>
  <xs:attribute name="stageId" type="xs:int" use="required" />
  <xs:attribute name="recur" type="xs:boolean" use="optional" />
  <xs:attribute name="offset" type="xs:int" use="optional" />
  <xs:attribute name="unit" type="xs:string" use="optional" />
  <xs:attribute name="stageDeleted" type="xs:boolean" use="optional" />
</xs:complexType>
```

2.5.1.18.2   Attributes

stageId: Identifier of the retention stage. It MUST be a positive integer.

recur: Specifies whether the retention stage recurs, that is, whether the retention action is performed periodically based on the **offset** and **unit** until the next retention stage is run.

offset: Number of time period units until the retention action recurs. MUST be ignored unless **recur** is set to **true**.

unit: Time period units for recurrence, which MUST be one of the enumerated values that are specified in the following table. MUST be ignored unless **recur** is set to **true**.

Value	Description
days	The recurrence unit is a day. The **offset** MUST be less than or equal to 182500 and greater than or equal to zero.
months	The recurrence unit is a month. The **offset** MUST be less than or equal to 6000 and greater than or equal to zero.
years	The recurrence unit is a year. The **offset** MUST be less than or equal to 500 and greater than or equal to zero.

stageDeleted: Specifies whether the retention stage has been deleted. This MUST be set to **true** or not present.

2.5.1.18.3 Child Elements

formula: Retention formula of the retention stage.

action: Retention action of the retention stage.

2.5.1.19 PolicyFormulaDefinition Type

The **PolicyFormulaDefinition** type specifies a retention formula.

2.5.1.19.1 Schema

```
<xs:complexType name="PolicyFormulaDefinition">
  <xs:sequence>
    <xs:element name="number" type="xs:int" />
    <xs:element name="property" type="xs:string" />
    <xs:element name="propertyId" type="xs:string" />
    <xs:element name="period" type="xs:string" />
  </xs:sequence>
  <xs:attribute name="id" type="xs:string" />
</xs:complexType>
```

2.5.1.19.2 Attributes

id: The identifier of the retention formula, which MUST be the one of the well-known values that are specified in the following table or an implementation-specific **class name**.

Value	Description
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Formula.BuiltIn	The expiration date is calculated based on the value of the document property specified by **PolicyFormulaDefinition.property**, plus the time period calculated by **PolicyFormulaDefinition.number** times the **PolicyFormulaDefinition.period**.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Formula.None	The expiration date is not automatically calculated. This value is obsolete and SHOULD NOT<10> be used.

2.5.1.19.3 Child Elements

number: Number of time period units to offset from the value of the document property specified by the **property**. MUST be ignored unless the **formula.id** is **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Formula.BuiltIn**.

property: Document property that is to be used in the formula to determine when to perform the **retention action**. The type of the document property MUST be a date and time and MUST be ignored unless the **formula.id** is **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Formula.BuiltIn**.

propertyId: The identifier of the document property that is to be used in the formula to determine when to perform the retention action, which MUST be a GUID.

period: Time period units to offset from the value of the document property specified by the **property**. MUST be ignored unless the **formula.id** is **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Formula.BuiltIn**. The following table describes possible values.

Value	Description
days	The offset unit is a day. The **number** MUST be less than or equal to 182500 and greater than or equal to zero.
months	The offset unit is a month. The **number** MUST be less than or equal to 6000 and greater than or equal to zero.
years	The offset unit is a year. The **number** MUST be less than or equal to 500 and greater than or equal to zero.

2.5.1.20   PolicyActionDefinition Type

The **PolicyActionDefinition** type specifies an action to perform when the formula comes due. For example, a common retention action is to delete the item.

2.5.1.20.1   Schema

```
<xs:complexType name="PolicyActionDefinition">
  <xs:attribute name="type" type="xs:string" />
  <xs:attribute name="id" type="xs:string" use="required"/>
  <xs:attribute name="destnExplanation" type="xs:string" />
  <xs:attribute name="destnName" type="xs:string" />
  <xs:attribute name="destnUrl" type="xs:string" />
  <xs:attribute name="destnId" type="xs:string" />
</xs:complexType>
```

2.5.1.20.2   Attributes

type: Type of action. The following table describes possible values.

action.type	Description
action	The action to perform is specified by the **id**.
workflow	The action is to start a **workflow (1)**.

id: If **type** is set to "workflow", this is the implementation-specific identifier of the workflow (1) to start. Otherwise, this SHOULD be one of the enumerated values that are specified in the following table, but it can be a vendor-extensible class name.

action.id	Description
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.MoveToRecycleBin	The action is to move the item to

action.id	Description
	the Recycle Bin.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.Delete	The action is to delete the item.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.Skip	The action is to skip to the next retention stage.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.Record	The action is to make the item a record.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileCopy	The action is to copy the item to a new location.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileMove	The action is to move the item to a new location.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileLink	The action is to copy the item to a new location and leave a link to the item in its new location.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.DeletePreviousDrafts	The action is to delete previous drafts of the item.
Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.DeletePreviousVersions	The action is to delete previous versions of item.

destnExplanation: User-provided reason for transferring (copying, moving, and so on) a file to a new location. MUST NOT be present unless **id** is set to **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileCopy**,

Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileMove, or **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileLink**.

The following attributes are implementation-specific<u><11></u>:

destnName: Name of the location to which to transfer the file. MUST NOT be present unless **id** is set to **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileCopy**, **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileMove**, or **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileLink**.

destnUrl: URL of the location to which to transfer the file, which MUST be of valid URL format. MUST NOT be present unless **id** is set to **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileCopy**, **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileMove**, or **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileLink**.

destnId: Identifier of the location to which to transfer the file, which MUST be a GUID. MUST NOT be present unless **id** is set to **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileCopy**, **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileMove**, or **Microsoft.Office.RecordsManagement.PolicyFeatures.Expiration.Action.SubmitFileLink**.

2.5.1.20.3 Child Elements

None.

2.5.1.21 ReceiverDefinitions Type

The **ReceiverDefinitions** type specifies a collection of event receivers of the **EventReceiver** type.

2.5.1.21.1 Schema

```
<xs:complexType name="ReceiverDefinitions">
  <xs:sequence>
    <xs:element name="Receiver" type="ReceiverDefinition" minOccurs="0" maxOccurs="unbounded"
/>
  </xs:sequence>
  <xs:attribute name="ListTemplateId" type="xs:int" />
  <xs:attribute name="ListUrl" type="xs:string" />
  <xs:attribute name="ListTemplateOwner" type="xs:string" />
  <xs:attribute name="Scope" type="xs:string" /></xs:complexType>
```

2.5.1.21.2 Attributes

ListTemplateId: The identifier of the list template to which to apply the event receivers.

ListUrl: The Web-relative URL of the list (1) to which to apply the event receivers.

ListTemplateOwner: This value MUST be ignored.

Scope: An optional value indicates where to apply the event receivers. When present, the value MUST be one of values in the following table. The value "Web" is assumed if a value is expected but not present.

Scope	Description
Site	Apply the event receivers to the site collection.
Web	Apply the event receivers to the **top-level site**.

2.5.1.21.3 Child Elements

Receiver: An event receiver defined by the **ReceiverDefinition** type.

2.5.1.22 ReceiverDefinition Type

The **ReceiverDefinition** type specifies information about one event receiver.

2.5.1.22.1 Schema

```
<xs:complexType name="ReceiverDefinition">
  <xs:all>
    <xs:element name="Name" type="String255Chars" minOccurs="1" maxOccurs="1" />
    <xs:element name="Synchronization" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="Type" type="xs:integer" minOccurs="1" maxOccurs="1" />
    <xs:element name="SequenceNumber" type="xs:integer" minOccurs="1" maxOccurs="1" />
    <xs:element name="Assembly" type="AssemblyStrongName" minOccurs="1" maxOccurs="1" />
    <xs:element name="Class" type="AssemblyClass" minOccurs="1" maxOccurs="1" />
    <xs:element name="Data" type="String255Chars" minOccurs="0" maxOccurs="1" />
  </xs:all>
</xs:complexType>
```

2.5.1.22.2 Attributes

None.

2.5.1.22.3 Child Elements

Name: The name of the event receiver.

Type: Type of the event to which the event receiver responds. The reader MUST ignore values not specified in [MS-WSSFO2] section 2.2.3.6 Event Receiver Type.

Sequence: Determines the order in which event receivers are run. Event receivers with a lower sequence number are run before event receivers with a higher sequence number.

Assembly: .NET assembly strong name that contains the event receiver implementation.

Class: .NET class name that contains the event receiver implementation.

Data: MAY contain additional data for the event receiver implementation.

Synchronization: An optional value that specifies whether the event receiver is run synchronously or asynchronously. When present, this value MUST be set to "Default", "Synchronous", or "Asynchronous" as described in the following table. When omitted, the default MUST be assumed.

Synchronization	Description
Default	Run receiver of **before event** synchronously, and run receiver of **after event**

Synchronization	Description
	asynchronously.
Synchronous	Run event receiver synchronously.
Asynchronous	Run event receiver asynchronously.

3   Structure Examples

The following example shows a view returned through the **ExportList** method. See [MS-WSSCAP] section 3.1.4.9, for a specification of **ExportList**. The view contains a query that filters for items whose title equals "MyTitle" that display three fields (1)—**Attachments**, **LinkTitle**, and **Modified**.

```
<View Name="{9C252FCA-B070-46DC-B89F-22FC1A01D40F}" Type="HTML" DisplayName="MyListView"
Url="Lists/Announcements/MyListView.aspx" Level="1" BaseViewID="1" ContentTypeID="0x"
ImageUrl="/_layouts/images/announce.png"
xmlns="http://schemas.microsoft.com/sharepoint/soap/">
  <Query>
    <Where>
      <Eq>
        <FieldRef Name="Title" />
        <Value Type="Text">MyTitle</Value>
      </Eq>
    </Where>
  </Query>
  <ViewFields>
    <FieldRef Name="Attachments" />
    <FieldRef Name="LinkTitle" />
    <FieldRef Name="Modified" />
  </ViewFields>
  <RowLimit Paged="TRUE">100</RowLimit>
  <Aggregations Value="Off" />
</View>
```

The following example shows a list schema returned through the **ExportList** method. See [MS-WSSCAP] section 3.1.4.9 for a specification of **ExportList**. Some components that specify the rendering of views and fields (1), which are not specified in this document, have been removed for brevity and are marked as "[removed for brevity]".

```
<List Name="{16DC665B-DC24-476A-A7FD-EB6C3B02527C}" Title="Some New Title" Description=""
Direction="2" BaseType="0" FeatureId="{00BFEA71-DE22-43B2-A848-C05709900100}"
ServerTemplate="100" Url="Lists/Some Custom List via RPC" OrderedList="TRUE"
PublicList="TRUE" VersioningEnabled="TRUE" MajorVersionLimit="9"
MajorWithMinorVersionsLimit="10" DraftVersionVisibility="2" DefaultItemOpen="1"
HiddenList="TRUE" DisableAttachments="TRUE" FolderCreation="FALSE" EmailAssignTo="TRUE"
ModerationType="TRUE" DisableDeployWithDependentList="TRUE" DisableDeployingList="TRUE"
AllowDeletion="FALSE" EnableContentTypes="TRUE" AllowEveryoneViewItems="TRUE"
CacheSchema="TRUE" Version="67">
  <MetaData>
    <Views>
      <View Name="{D24FB901-5836-4CC9-8F86-4CA4B53B5B51}" DefaultView="TRUE" Type="HTML"
DisplayName="All Items" Url="Lists/Some Custom List via RPC/AllItems.aspx" Level="1"
BaseViewID="1" ContentTypeID="0x" ImageUrl="/_layouts/images/generic.png">
        <ViewFields>
          <FieldRef Name="DocIcon" />
          <FieldRef Name="LinkTitle" />
          <FieldRef Name="_ModerationStatus" />
        </ViewFields>
        <GroupByHeader>
          [removed for brevity]
        </GroupByHeader>

        <GroupByFooter>
```

```
          [removed for brevity]
        </GroupByFooter>

        <ViewHeader>
          [removed for brevity]
        </ViewHeader>

        <ViewBidiHeader>
          [removed for brevity]
        </ViewBidiHeader>

        <ViewBody>
          [removed for brevity]
        </ViewBody>

        <ViewFooter>
          [removed for brevity]
        </ViewFooter>

        <RowLimitExceeded>
          [removed for brevity]
        </RowLimitExceeded>

        <PagedRowset>
          [removed for brevity]
        </PagedRowset>

        <PagedClientCallbackRowset>
          [removed for brevity]
        </PagedClientCallbackRowset>

        <PagedRecurrenceRowset>
          [removed for brevity]
        </PagedRecurrenceRowset>

        <RowLimit Paged="TRUE">100</RowLimit>

        <ViewEmpty>
          [removed for brevity]
        </ViewEmpty>

        <Toolbar Type="Standard" />

        <Script>
          [removed for brevity]
        </Script>

        <Query>
          <OrderBy>
            <FieldRef Name="ID" />
          </OrderBy>
        </Query>
      </View>
    </Views>
    <Fields>
      <Field ID="{03e45e84-1992-4d42-9116-26f756012634}" RowOrdinal="0" Type="ContentTypeId"
 Sealed="TRUE" ReadOnly="TRUE" Hidden="TRUE" DisplayName="Content Type ID"
 Name="ContentTypeId" DisplaceOnUpgrade="TRUE"
```

```
        SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="ContentTypeId"
ColName="tp_ContentTypeId" FromBaseType="TRUE" />
        <Field ID="{fa564e0f-0c70-4ab9-b863-0177e6ddd247}" Type="Text" Name="Title"
DisplayName="Title" Required="TRUE" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="Title" FromBaseType="TRUE" ColName="nvarchar1" />
        <Field ID="{34ad21eb-75bd-4544-8c73-0e08330291fe}" ReadOnly="TRUE" Type="Note"
Name="_ModerationComments" DisplayName="Approver Comments" Hidden="FALSE"
CanToggleHidden="TRUE" Filterable="FALSE" Sortable="FALSE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_ModerationComments"
FromBaseType="TRUE" ColName="ntext1" />
        <Field ID="{39360f11-34cf-4356-9945-25c44e68dade}" ReadOnly="TRUE" Hidden="TRUE"
Type="Text" Name="File_x0020_Type" DisplaceOnUpgrade="TRUE" DisplayName="File Type"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="File_x0020_Type"
FromBaseType="TRUE" ColName="nvarchar2" />
        <Field ID="{fdc3b2ed-5bf2-4835-a4bc-b885f3396a61}" ColName="tp_ModerationStatus"
RowOrdinal="0" ReadOnly="TRUE" Type="ModStat" Name="_ModerationStatus" DisplayName="Approval
Status" Hidden="FALSE" CanToggleHidden="TRUE" Required="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_ModerationStatus"
FromBaseType="TRUE">
            <CHOICES>
              <CHOICE>0;#Approved</CHOICE>
              <CHOICE>1;#Rejected</CHOICE>
              <CHOICE>2;#Pending</CHOICE>
              <CHOICE>3;#Draft</CHOICE>
              <CHOICE>4;#Scheduled</CHOICE>
            </CHOICES>
            <Default>0</Default>
        </Field>
        <Field ID="{1d22ea11-1e32-424e-89ab-9fedbadb6ce1}" ColName="tp_ID" RowOrdinal="0"
ReadOnly="TRUE" Type="Counter" Name="ID" PrimaryKey="TRUE" DisplayName="ID"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="ID" FromBaseType="TRUE" />
        <Field ID="{c042a256-787d-4a6f-8a8a-cf6ab767f12d}" RowOrdinal="0" Type="Text"
DisplayName="Content Type" ReadOnly="TRUE" Name="ContentType" DisplaceOnUpgrade="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="ContentType"
ColName="tp_ContentType" Group="_Hidden" PITarget="MicrosoftWindowsSharePointServices"
PIAttribute="ContentTypeID" FromBaseType="TRUE" />
        <Field ID="{28cf69c5-fa48-462a-b5cd-27b6f9d2bd5f}" ColName="tp_Modified" RowOrdinal="0"
ReadOnly="TRUE" Type="DateTime" Name="Modified" DisplayName="Modified" StorageTZ="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Modified"
FromBaseType="TRUE" />
        <Field ID="{8c06beca-0777-48f7-91c7-6da68bc07b69}" ColName="tp_Created" RowOrdinal="0"
ReadOnly="TRUE" Type="DateTime" Name="Created" DisplayName="Created" StorageTZ="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Created"
FromBaseType="TRUE" />
        <Field ID="{1df5e554-ec7e-46a6-901d-d85a3881cb18}" ColName="tp_Author" RowOrdinal="0"
ReadOnly="TRUE" Type="User" List="UserInfo" Name="Author" DisplayName="Created By"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Author" FromBaseType="TRUE"
/>
        <Field ID="{d31655d1-1d5b-4511-95a1-7a09e9b75bf2}" ColName="tp_Editor" RowOrdinal="0"
ReadOnly="TRUE" Type="User" List="UserInfo" Name="Editor" DisplayName="Modified By"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Editor" FromBaseType="TRUE"
/>
        <Field ID="{26d0756c-986a-48a7-af35-bf18ab85ff4a}" ColName="tp_HasCopyDestinations"
RowOrdinal="0" Sealed="TRUE" Hidden="TRUE" ReadOnly="TRUE" Type="Boolean"
Name="_HasCopyDestinations" DisplaceOnUpgrade="TRUE" DisplayName="Has Copy Destinations"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_HasCopyDestinations"
FromBaseType="TRUE" />
        <Field ID="{6b4e226d-3d88-4a36-808d-a129bf52bccf}" ColName="tp_CopySource"
RowOrdinal="0" Sealed="TRUE" Hidden="TRUE" ReadOnly="TRUE" Type="Text" Name="_CopySource"
DisplaceOnUpgrade="TRUE" DisplayName="Copy Source"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_CopySource"
FromBaseType="TRUE" />
        <Field ID="{d4e44a66-ee3a-4d02-88c9-4ec5ff3f4cd5}" ColName="tp_Version" RowOrdinal="0"
Hidden="TRUE" ReadOnly="TRUE" Type="Integer" SetAs="owshiddenversion" Name="owshiddenversion"
```

```
        DisplayName="owshiddenversion" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="owshiddenversion" FromBaseType="TRUE" />
        <Field ID="{f1e020bc-ba26-443f-bf2f-b68715017bbc}" ColName="tp_WorkflowVersion"
RowOrdinal="0" Hidden="TRUE" ReadOnly="TRUE" Type="Integer" Name="WorkflowVersion"
DisplaceOnUpgrade="TRUE" DisplayName="Workflow Version"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="WorkflowVersion"
FromBaseType="TRUE" />
        <Field ID="{7841bf41-43d0-4434-9f50-a673baef7631}" ColName="tp_UIVersion"
RowOrdinal="0" ReadOnly="TRUE" Type="Integer" Name="_UIVersion" DisplaceOnUpgrade="TRUE"
DisplayName="UI Version" Hidden="TRUE" CanToggleHidden="TRUE" Required="FALSE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_UIVersion"
FromBaseType="TRUE" />
        <Field ID="{dce8262a-3ae9-45aa-aab4-83bd75fb738a}" ColName="tp_UIVersionString"
RowOrdinal="0" ReadOnly="TRUE" Type="Text" Name="_UIVersionString" DisplaceOnUpgrade="TRUE"
DisplayName="Version" CanToggleHidden="TRUE" Required="FALSE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_UIVersionString"
FromBaseType="TRUE" />
        <Field ID="{67df98f4-9dec-48ff-a553-29bece9c5bf4}" ColName="tp_HasAttachment"
RowOrdinal="0" Type="Attachments" Name="Attachments" DisplayName="Attachments"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Attachments"
FromBaseType="TRUE" />
        <Field ID="{503f1caa-358e-4918-9094-4a2cdc4bc034}" ReadOnly="TRUE" Type="Computed"
Name="Edit" Sortable="FALSE" Filterable="FALSE" DisplayName="Edit" ClassInfo="Icon"
AuthoringInfo="(link to edit item)" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="Edit" FromBaseType="TRUE">
            <DisplayPattern>
              <IfHasRights>
                <RightsChoices>
                  <RightsGroup PermEditListItems="required" />
                </RightsChoices>
                <Then>
                  <HTML><![CDATA[<a href="]]></HTML>
                  <URL Cmd="Edit" />
                  <HTML><![CDATA[" onclick="GoToLink(this);return false;"
target="_self">]]></HTML>
                  <HTML><![CDATA[<img border="0" alt="]]></HTML>
                  <HTML>Edit</HTML>
                  <HTML><![CDATA[" src="/_layouts/images/edititem.gif">]]></HTML>
                  <HTML><![CDATA[</a>]]></HTML>
                </Then>
                <Else>
                  <HTML><![CDATA[ ]]></HTML>
                </Else>
              </IfHasRights>
            </DisplayPattern>
        </Field>
        <Field ID="{bc91a437-52e7-49e1-8c4e-4698904b2b6d}" ReadOnly="TRUE" Type="Computed"
Name="LinkTitleNoMenu" DisplayName="Title" Dir="" DisplayNameSrcField="Title"
AuthoringInfo="(linked to item)" EnableLookup="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="LinkTitleNoMenu"
FromBaseType="TRUE">
            <FieldRefs>
              <FieldRef Name="Title" />
              <FieldRef Name="LinkFilenameNoMenu" />
            </FieldRefs>
            <DisplayPattern>
              <IfEqual>
                <Expr1>
                  <LookupColumn Name="FSObjType" />
                </Expr1>
                <Expr2>1</Expr2>
                <Then>
```

```
              <Field Name="LinkFilenameNoMenu" />
            </Then>
            <Else>
              <HTML><![CDATA[<a onfocus="OnLink(this)" href="]]></HTML>
              <URL />
              <HTML><![CDATA[" ONCLICK="GoToLink(this);return false;"
target="_self">]]></HTML>
              <Column HTMLEncode="TRUE" Name="Title" Default="(no title)" />
              <IfEqual>
                <Expr1>
                  <GetVar Name="ShowAccessibleIcon" />
                </Expr1>
                <Expr2>1</Expr2>
                <Then>
                  <HTML><![CDATA[<img src="/_layouts/images/blank.gif" class="ms-hidden"
border=0 width=1 height=1 alt="]]></HTML>
                    <HTML>Use SHIFT+ENTER to open the menu (new window).</HTML>
                    <HTML><![CDATA[">]]></HTML>
                </Then>
              </IfEqual>
              <HTML><![CDATA[</a>]]></HTML>
              <IfNew>
                <HTML><![CDATA[<IMG SRC="/_layouts/1033/images/new.gif" alt="]]></HTML>
                <HTML>New</HTML>
                <HTML><![CDATA[">]]></HTML>
              </IfNew>
            </Else>
          </IfEqual>
        </DisplayPattern>
      </Field>
      <Field ID="{82642ec8-ef9b-478f-acf9-31f7d45fbc31}" ReadOnly="TRUE" Type="Computed"
Name="LinkTitle" DisplayName="Title" DisplayNameSrcField="Title" ClassInfo="Menu"
AuthoringInfo="(linked to item with edit menu)"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="LinkTitle"
FromBaseType="TRUE">
        <FieldRefs>
          <FieldRef Name="Title" />
          <FieldRef Name="LinkTitleNoMenu" />
          <FieldRef Name="_EditMenuTableStart" />
          <FieldRef Name="_EditMenuTableEnd" />
        </FieldRefs>
        <DisplayPattern>
          <FieldSwitch>
            <Expr>
              <GetVar Name="FreeForm" />
            </Expr>
            <Case Value="TRUE">
              <Field Name="LinkTitleNoMenu" />
            </Case>
            <Default>
              <Field Name="_EditMenuTableStart" />
              <SetVar Name="ShowAccessibleIcon" Value="1" />
              <Field Name="LinkTitleNoMenu" />
              <SetVar Name="ShowAccessibleIcon" Value="0" />
              <Field Name="_EditMenuTableEnd" />
            </Default>
          </FieldSwitch>
        </DisplayPattern>
      </Field>
```

```
            <Field ID="{b1f7969b-ea65-42e1-8b54-b588292635f2}" ReadOnly="TRUE" Type="Computed"
Sortable="FALSE" Filterable="FALSE" Name="SelectTitle" Hidden="TRUE" CanToggleHidden="TRUE"
DisplayName="Select" Dir="" AuthoringInfo="(web part connection)" HeaderImage="blank.gif"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="SelectTitle"
FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="ID" />
          </FieldRefs>
          <DisplayPattern>
            <IfEqual>
              <Expr1>
                <GetVar Name="SelectedID" />
              </Expr1>
              <Expr2>
                <Column Name="ID" />
              </Expr2>
              <Then>
                <HTML><![CDATA[<img border="0" align="absmiddle" style="cursor: pointer"
src="/_layouts/images/rbsel.gif" alt="]]></HTML>
                <HTML>Selected</HTML>
                <HTML><![CDATA[">]]></HTML>
              </Then>
              <Else>
                <HTML><![CDATA[<a href="javascript:SelectField(']]></HTML>
                <GetVar Name="View" />
                <HTML><![CDATA[',']]></HTML>
                <ScriptQuote NotAddingQuote="TRUE">
                  <Column Name="ID" />
                </ScriptQuote>
                <HTML><![CDATA[');return false;" onclick="javascript:SelectField(']]></HTML>
                <GetVar Name="View" />
                <HTML><![CDATA[',']]></HTML>
                <ScriptQuote NotAddingQuote="TRUE">
                  <Column Name="ID" />
                </ScriptQuote>
                <HTML><![CDATA[');return false;" target="_self">]]></HTML>
                <HTML><![CDATA[<img border="0" align="absmiddle" style="cursor: pointer"
src="/_layouts/images/rbunsel.gif"  alt="]]></HTML>
                <HTML>Normal</HTML>
                <HTML><![CDATA[">]]></HTML>
                <HTML><![CDATA[</a>]]></HTML>
              </Else>
            </IfEqual>
          </DisplayPattern>
        </Field>
        <Field ID="{50a54da4-1528-4e67-954a-e2d24f1e9efb}" Name="InstanceID"
DisplayName="Instance ID" ColName="tp_InstanceID" RowOrdinal="0" ReadOnly="TRUE"
Hidden="TRUE" Type="Integer" Min="0" Max="99991231" Filterable="TRUE" Sortable="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="InstanceID"
FromBaseType="TRUE" />
        <Field ID="{ca4addac-796f-4b23-b093-d2a3f65c0774}" ColName="tp_ItemOrder"
RowOrdinal="0" Name="Order" DisplayName="Order" Type="Number" Hidden="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Order" FromBaseType="TRUE"
/>
        <Field ID="{ae069f25-3ac2-4256-b9c3-15dbc15da0e0}" ColName="tp_GUID" RowOrdinal="0"
ReadOnly="TRUE" Hidden="TRUE" Type="Guid" Name="GUID" DisplayName="GUID"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="GUID" FromBaseType="TRUE"
/>
        <Field ID="{de8beacf-5505-47cd-80a6-aa44e7ffe2f4}" ColName="tp_WorkflowInstanceID"
RowOrdinal="0" ReadOnly="TRUE" Hidden="TRUE" Type="Guid" Name="WorkflowInstanceID"
DisplaceOnUpgrade="TRUE" DisplayName="Workflow Instance ID"
```

```
      SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="WorkflowInstanceID"
FromBaseType="TRUE" />
        <Field ID="{94f89715-e097-4e8b-ba79-ea02aa8b7adb}" Name="FileRef"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" Type="Lookup" DisplayName="URL Path"
List="Docs" FieldRef="ID" ShowField="FullUrl" JoinColName="DoclibRowId" JoinRowOrdinal="0"
JoinType="INNER" SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="FileRef"
FromBaseType="TRUE" />
        <Field ID="{56605df6-8fa1-47e4-a04c-5b384d59609f}" Name="FileDirRef"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" Type="Lookup" DisplayName="Path"
List="Docs" FieldRef="ID" ShowField="DirName" JoinColName="DoclibRowId" JoinRowOrdinal="0"
JoinType="INNER" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="FileDirRef" FromBaseType="TRUE" />
        <Field ID="{173f76c8-aebd-446a-9bc9-769a2bd2c18f}" Name="Last_x0020_Modified"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" DisplayName="Modified" Type="Lookup"
List="Docs" FieldRef="ID" ShowField="TimeLastModified" Format="TRUE"
JoinColName="DoclibRowId" JoinRowOrdinal="0" JoinType="INNER"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="Last_x0020_Modified"
FromBaseType="TRUE" />
        <Field ID="{998b5cff-4a35-47a7-92f3-3914aa6aa4a2}" Name="Created_x0020_Date"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" DisplayName="Created" Type="Lookup"
List="Docs" FieldRef="ID" ShowField="TimeCreated" Format="TRUE" JoinColName="DoclibRowId"
JoinRowOrdinal="0" JoinType="INNER" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="Created_x0020_Date" FromBaseType="TRUE" />
        <Field ID="{30bb605f-5bae-48fe-b4e3-1f81d9772af9}" Name="FSObjType"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" ShowInFileDlg="FALSE" Type="Lookup"
DisplayName="Item Type" List="Docs" FieldRef="ID" ShowField="FSType"
JoinColName="DoclibRowId" JoinRowOrdinal="0" JoinType="INNER"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="FSObjType"
FromBaseType="TRUE" />
        <Field ID="{ba3c27ee-4791-4867-8821-ff99000bac98}" Name="PermMask"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" RenderXMLUsingPattern="TRUE"
ShowInFileDlg="FALSE" Type="Computed" DisplayName="Effective Permissions Mask"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="PermMask"
FromBaseType="TRUE">
            <FieldRefs>
              <FieldRef Name="ID" />
            </FieldRefs>
            <DisplayPattern>
              <CurrentRights />
            </DisplayPattern>
        </Field>
        <Field ID="{8553196d-ec8d-4564-9861-3dbe931050c8}" Hidden="TRUE" ShowInFileDlg="FALSE"
ShowInVersionHistory="FALSE" Type="File" Name="FileLeafRef" DisplaceOnUpgrade="TRUE"
DisplayName="Name" AuthoringInfo="(for use in forms)" List="Docs" FieldRef="ID"
ShowField="LeafName" JoinColName="DoclibRowId" JoinRowOrdinal="0" JoinType="INNER"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="FileLeafRef"
FromBaseType="TRUE" />
        <Field ID="{4b7403de-8d94-43e8-9f0f-137a3e298126}" Name="UniqueId"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" ShowInFileDlg="FALSE" Type="Lookup"
DisplayName="Unique Id" List="Docs" FieldRef="ID" ShowField="UniqueId"
JoinColName="DoclibRowId" JoinRowOrdinal="0" JoinType="INNER"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="UniqueId"
FromBaseType="TRUE" />
        <Field ID="{c5c4b81c-f1d9-4b43-a6a2-090df32ebb68}" Name="ProgId"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" ShowInFileDlg="FALSE" Type="Lookup"
DisplayName="ProgId" List="Docs" FieldRef="ID" ShowField="ProgId" JoinColName="DoclibRowId"
JoinRowOrdinal="0" JoinType="INNER" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="ProgId" FromBaseType="TRUE" />
        <Field ID="{dddd2420-b270-4735-93b5-92b713d0944d}" Name="ScopeId"
DisplaceOnUpgrade="TRUE" ReadOnly="TRUE" Hidden="TRUE" ShowInFileDlg="FALSE" Type="Lookup"
DisplayName="ScopeId" List="Docs" FieldRef="ID" ShowField="ScopeId" JoinColName="DoclibRowId"
JoinRowOrdinal="0" JoinType="INNER" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="ScopeId" FromBaseType="TRUE" />
```

```
        <Field ReadOnly="TRUE" ID="{4ef1b78f-fdba-48dc-b8ab-3fa06a0c9804}" Hidden="TRUE"
Type="Computed" Name="HTML_x0020_File_x0020_Type" DisplaceOnUpgrade="TRUE" DisplayName="HTML
File Type" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="HTML_x0020_File_x0020_Type" FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="File_x0020_Type" />
          </FieldRefs>
          <DisplayPattern />
        </Field>
        <Field ID="{3c6303be-e21f-4366-80d7-d6d0a3b22c7a}" Hidden="TRUE" ReadOnly="TRUE"
Type="Computed" Name="_EditMenuTableStart" DisplaceOnUpgrade="TRUE" DisplayName="Edit Menu
Table Start" ClassInfo="Menu" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="_EditMenuTableStart" FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="FileLeafRef" />
            <FieldRef Name="FileDirRef" />
            <FieldRef Name="FSObjType" />
            <FieldRef Name="ID" />
            <FieldRef Name="ServerUrl" />
            <FieldRef Name="HTML_x0020_File_x0020_Type" />
            <FieldRef Name="File_x0020_Type" />
            <FieldRef Name="PermMask" />
            <FieldRef Name="_HasCopyDestinations" />
            <FieldRef Name="_CopySource" />
            <FieldRef Name="ContentType" />
            <FieldRef Name="ContentTypeId" />
            <FieldRef Name="_ModerationStatus" />
            <FieldRef Name="_UIVersion" />
          </FieldRefs>
          <DisplayPattern>
            [removed for brevity]
          </DisplayPattern>
        </Field>
        <Field ID="{2ea78cef-1bf9-4019-960a-02c41636cb47}" Hidden="TRUE" ReadOnly="TRUE"
Type="Computed" Name="_EditMenuTableEnd" DisplaceOnUpgrade="TRUE" DisplayName="Edit Menu
Table End" ClassInfo="Menu" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="_EditMenuTableEnd" FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="ID" />
          </FieldRefs>
          <DisplayPattern>
            <HTML><![CDATA[</td><td><img src="/_layouts/images/blank.gif" width=13
style="visibility:hidden" alt=""></td></tr></table>]]></HTML>
          </DisplayPattern>
        </Field>
        <Field ID="{9d30f126-ba48-446b-b8f9-83745f322ebe}" ReadOnly="TRUE" Type="Computed"
Name="LinkFilenameNoMenu" DisplaceOnUpgrade="TRUE" DisplayName="Name" Hidden="TRUE"
DisplayNameSrcField="FileLeafRef" Filterable="FALSE" AuthoringInfo="(linked to document)"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="LinkFilenameNoMenu"
FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="FileLeafRef" />
            <FieldRef Name="FSObjType" />
            <FieldRef Name="Created_x0020_Date" />
            <FieldRef Name="FileRef" />
            <FieldRef Name="File_x0020_Type" />
            <FieldRef Name="ContentTypeId" />
            <FieldRef Name="PermMask" />
          </FieldRefs>
          <DisplayPattern>
```

```
                  [removed for brevity]
            </DisplayPattern>
         </Field>
         <Field ID="{5cc6dc79-3710-4374-b433-61cb4a686c12}" ReadOnly="TRUE" Type="Computed"
Name="LinkFilename" DisplaceOnUpgrade="TRUE" Hidden="TRUE" DisplayName="Name"
DisplayNameSrcField="FileLeafRef" Filterable="FALSE" ClassInfo="Menu" AuthoringInfo="(linked
to document with edit menu)" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="LinkFilename" FromBaseType="TRUE">
            <FieldRefs>
               <FieldRef Name="LinkFilenameNoMenu" />
               <FieldRef Name="_EditMenuTableStart" />
               <FieldRef Name="_EditMenuTableEnd" />
            </FieldRefs>
            <DisplayPattern>
               <FieldSwitch>
                  <Expr>
                     <GetVar Name="FreeForm" />
                  </Expr>
                  <Case Value="TRUE">
                     <Field Name="LinkFilenameNoMenu" />
                  </Case>
                  <Default>
                     <Field Name="_EditMenuTableStart" />
                     <SetVar Name="ShowAccessibleIcon" Value="1" />
                     <Field Name="LinkFilenameNoMenu" />
                     <SetVar Name="ShowAccessibleIcon" Value="0" />
                     <Field Name="_EditMenuTableEnd" />
                  </Default>
               </FieldSwitch>
            </DisplayPattern>
         </Field>
         <Field ID="{081c6e4c-5c14-4f20-b23e-1a71ceb6a67c}" Type="Computed" ReadOnly="TRUE"
Name="DocIcon" DisplaceOnUpgrade="TRUE" DisplayName="Type" TextOnly="TRUE" ClassInfo="Icon"
AuthoringInfo="(icon linked to document)"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="DocIcon"
FromBaseType="TRUE">
            <FieldRefs>
               <FieldRef Name="File_x0020_Type" />
               <FieldRef Name="FSObjType" />
               <FieldRef Name="FileRef" />
               <FieldRef Name="FileLeafRef" />
               <FieldRef Name="HTML_x0020_File_x0020_Type" />
               <FieldRef Name="PermMask" />
            </FieldRefs>
            <DisplayPattern>
               [removed for brevity]
            </DisplayPattern>
         </Field>
         <Field ID="{105f76ce-724a-4bba-aece-f81f2fce58f5}" ReadOnly="TRUE" Hidden="TRUE"
Type="Computed" Name="ServerUrl" DisplaceOnUpgrade="TRUE" DisplayName="Server Relative URL"
Filterable="FALSE" RenderXMLUsingPattern="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="ServerUrl"
FromBaseType="TRUE">
            <FieldRefs>
               <FieldRef Name="FileRef" />
            </FieldRefs>
            <DisplayPattern>
               <HTML>/</HTML>
               <LookupColumn Name="FileRef" />
            </DisplayPattern>
```

```xml
        </Field>
        <Field ID="{7177cfc7-f399-4d4d-905d-37dd51bc90bf}" ReadOnly="TRUE" Hidden="TRUE"
Type="Computed" Name="EncodedAbsUrl" DisplaceOnUpgrade="TRUE" DisplayName="Encoded Absolute
URL" Filterable="FALSE" RenderXMLUsingPattern="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="EncodedAbsUrl"
FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="FileRef" />
          </FieldRefs>
          <DisplayPattern>
            <HttpHost URLEncodeAsURL="TRUE" />
            <HTML>/</HTML>
            <LookupColumn Name="FileRef" URLEncodeAsURL="TRUE" />
          </DisplayPattern>
        </Field>
        <Field ID="{7615464b-559e-4302-b8e2-8f440b913101}" ReadOnly="TRUE" Hidden="TRUE"
Type="Computed" Name="BaseName" DisplaceOnUpgrade="TRUE" DisplayName="File Name"
Filterable="FALSE" RenderXMLUsingPattern="TRUE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="BaseName"
FromBaseType="TRUE">
          <FieldRefs>
            <FieldRef Name="FileLeafRef" />
            <FieldRef Name="FSObjType" />
          </FieldRefs>
          <DisplayPattern>
            <IfEqual>
              <Expr1>
                <LookupColumn Name="FSObjType" />
              </Expr1>
              <Expr2>1</Expr2>
              <Then>
                <LookupColumn Name="FileLeafRef" HTMLEncode="TRUE" />
              </Then>
              <Else>
                <UrlBaseName HTMLEncode="TRUE">
                  <LookupColumn Name="FileLeafRef" />
                </UrlBaseName>
              </Else>
            </IfEqual>
          </DisplayPattern>
        </Field>
        <Field ID="{687c7f94-686a-42d3-9b67-2782eac4b4f8}" Name="MetaInfo"
DisplaceOnUpgrade="TRUE" Hidden="TRUE" ShowInFileDlg="FALSE" Type="Lookup"
DisplayName="Property Bag" List="Docs" FieldRef="ID" ShowField="MetaInfo"
JoinColName="DoclibRowId" JoinType="INNER"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="MetaInfo"
FromBaseType="TRUE" />
        <Field ID="{43bdd51b-3c5b-4e78-90a8-fb2087f71e70}" ColName="tp_Level" RowOrdinal="0"
ReadOnly="TRUE" Type="Integer" Name="_Level" DisplaceOnUpgrade="TRUE" DisplayName="Level"
Hidden="TRUE" Required="FALSE" SourceID="http://schemas.microsoft.com/sharepoint/v3"
StaticName="_Level" FromBaseType="TRUE" />
        <Field ID="{c101c3e7-122d-4d4d-bc34-58e94a38c816}" ColName="tp_IsCurrentVersion"
DisplaceOnUpgrade="TRUE" RowOrdinal="0" ReadOnly="TRUE" Type="Boolean"
Name="_IsCurrentVersion" DisplayName="Is Current Version" Hidden="TRUE" Required="FALSE"
SourceID="http://schemas.microsoft.com/sharepoint/v3" StaticName="_IsCurrentVersion"
FromBaseType="TRUE" />
      </Fields>
      <ContentTypes>
        <ContentType ID="0x01003056A1FBD7AB3B43BA55FA8F5AC76D6A" Name="Item" Group="List
Content Types" Description="Create a new list item." Version="0" FeatureId="{695b6570-a48b-
4a8e-8ea5-26ea7fc1d162}">
```

```xml
      <FieldRefs>
        <FieldRef ID="{c042a256-787d-4a6f-8a8a-cf6ab767f12d}" Name="ContentType" />
        <FieldRef ID="{fa564e0f-0c70-4ab9-b863-0177e6ddd247}" Name="Title" Required="TRUE"
ShowInNewForm="TRUE" ShowInEditForm="TRUE" />
      </FieldRefs>
      <XmlDocuments>
        <XmlDocument
NamespaceURI="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
          <FormTemplates
xmlns="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
            <Display>ListForm</Display>
            <Edit>ListForm</Edit>
            <New>ListForm</New>
          </FormTemplates>
        </XmlDocument>
      </XmlDocuments>
      <Folder TargetName="Item" />
    </ContentType>
    <ContentType ID="0x01200009BBE0546A19524F9D32D2C92AE60FDF" Name="Folder" Group="Folder
Content Types" Description="Create a new folder." Sealed="TRUE" Version="0"
FeatureId="{695b6570-a48b-4a8e-8ea5-26ea7fc1d162}">
      <FieldRefs>
        <FieldRef ID="{c042a256-787d-4a6f-8a8a-cf6ab767f12d}" Name="ContentType" />
        <FieldRef ID="{fa564e0f-0c70-4ab9-b863-0177e6ddd247}" Name="Title" Required="FALSE"
Hidden="TRUE" />
        <FieldRef ID="{8553196d-ec8d-4564-9861-3dbe931050c8}" Name="FileLeafRef"
Hidden="FALSE" Required="TRUE" />
      </FieldRefs>
      <XmlDocuments>
        <XmlDocument
NamespaceURI="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
          <FormTemplates
xmlns="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
            <Display>ListForm</Display>
            <Edit>ListForm</Edit>
            <New>ListForm</New>
          </FormTemplates>
        </XmlDocument>
      </XmlDocuments>
    </ContentType>
  </ContentTypes>
  <Forms>
    <Form Type="DisplayForm" Name="{3247C226-DA6D-40D2-AC6E-635A33F2DBFF}" Url="Lists/Some
Custom List via RPC/DispForm.aspx" Default="TRUE" />
    <Form Type="EditForm" Name="{A8C98402-6DF3-4A9F-9853-54216A85140A}" Url="Lists/Some
Custom List via RPC/EditForm.aspx" Default="TRUE" />
    <Form Type="NewForm" Name="{C81F208E-F5BD-421D-B8C4-BBD73A0221C8}" Url="Lists/Some
Custom List via RPC/NewForm.aspx" Default="TRUE" />
  </Forms>
  <Security>
    <ReadSecurity>1</ReadSecurity>
    <WriteSecurity>2</WriteSecurity>
    <SchemaSecurity>0</SchemaSecurity>
  </Security>
 </MetaData>
</List>
```

The following example shows a content type schema.

```xml
<ContentTypes>
  <ContentType ID="0x010100151D6E9AAB0A8E43B94916DB521E696C" Name="Document" Group="Document
Content Types" Description="Create a new document." V2ListTemplateName="doclib" Version="0"
FeatureId="{695b6570-a48b-4a8e-8ea5-26ea7fc1d162}">
    <FieldRefs>
      <FieldRef ID="{c042a256-787d-4a6f-8a8a-cf6ab767f12d}" Name="ContentType"/>
      <FieldRef ID="{5f47e085-2150-41dc-b661-442f3027f552}" Name="SelectFilename"/>
      <FieldRef ID="{8553196d-ec8d-4564-9861-3dbe931050c8}" Name="FileLeafRef"
Required="TRUE"/>
      <FieldRef ID="{8c06beca-0777-48f7-91c7-6da68bc07b69}" Name="Created" Hidden="TRUE"/>
      <FieldRef ID="{fa564e0f-0c70-4ab9-b863-0177e6ddd247}" Name="Title" Required="FALSE"
ShowInNewForm="FALSE" ShowInEditForm="TRUE"/>
      <FieldRef ID="{28cf69c5-fa48-462a-b5cd-27b6f9d2bd5f}" Name="Modified" Hidden="TRUE"/>
      <FieldRef ID="{822c78e3-1ea9-4943-b449-57863ad33ca9}" Name="Modified_x0020_By"
Hidden="FALSE"/>
      <FieldRef ID="{4dd7e525-8d6b-4cb4-9d3e-44ee25f973eb}" Name="Created_x0020_By"
Hidden="FALSE"/>
    </FieldRefs>
    <XmlDocuments>
      <XmlDocument
NamespaceURI="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
        <FormTemplates xmlns="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
          <Display>DocumentLibraryForm</Display>
          <Edit>DocumentLibraryForm</Edit>
          <New>DocumentLibraryForm</New>
        </FormTemplates>
      </XmlDocument>
    </XmlDocuments>
    <Folder TargetName="Forms/Document"/>
  </ContentType>
  <ContentType ID="0x0120007DAE54352CCF27408D0C1505674612EC" Name="Folder" Group="Folder
Content Types" Description="Create a new folder." Sealed="TRUE" Version="0"
FeatureId="{695b6570-a48b-4a8e-8ea5-26ea7fc1d162}">
    <FieldRefs>
      <FieldRef ID="{c042a256-787d-4a6f-8a8a-cf6ab767f12d}" Name="ContentType"/>
      <FieldRef ID="{fa564e0f-0c70-4ab9-b863-0177e6ddd247}" Name="Title" Required="FALSE"
Hidden="TRUE"/>
      <FieldRef ID="{8553196d-ec8d-4564-9861-3dbe931050c8}" Name="FileLeafRef" Hidden="FALSE"
Required="TRUE"/>
    </FieldRefs>
    <XmlDocuments>
      <XmlDocument
NamespaceURI="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
        <FormTemplates xmlns="http://schemas.microsoft.com/sharepoint/v3/contenttype/forms">
          <Display>ListForm</Display>
          <Edit>ListForm</Edit>
          <New>ListForm</New>
        </FormTemplates>
      </XmlDocument>
    </XmlDocuments>
  </ContentType>
</ContentTypes>
```

4 Security

4.1 Security Considerations for Implementers

The **Path** and **SetupPath** attributes of the **FormDefinition** and **ListDefinition** types contain a location to template files stored on the front-end Web server. When reading these complex types, validation is performed to ensure that access to files not intended for use as templates is prevented.

The server exposes a certain amount of internal implementation detail to the client by way of the **ColName**, **ColName2**, **RowOrdinal**, and **RowOrdinal2** attributes of the **FieldDefinition** type. The values for these attributes is set by the server, and the server does not permit the client to influence these settings.

4.2 Index of Security Fields

None.

5 Appendix A: Full XML Schema

For ease of implementation, the following CAML schema is provided.

Note In the following schema, in some cases a line is broken into multiple lines for readability.

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema id="WSS" targetNamespace="http://schemas.microsoft.com/sharepoint/soap/"
xmlns="http://schemas.microsoft.com/sharepoint/soap/"
xmlns:mstns="http://schemas.microsoft.com/sharepoint/soap/"  elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema" version="1.0" attributeFormDefault="unqualified">

<xs:simpleType name="AggregationsType">
    <xs:restriction base="xs:string">
      <xs:pattern
value="[Aa][Vv][Gg]|[Cc][Oo][Uu][Nn][Tt]|[Mm][Aa][Xx]|[Mm][Ii][Nn]|[Ss][Tt][Dd][Ee][Vv]|[Ss][
Uu][Mm]|[Vv][Aa][Rr]" />
    </xs:restriction>
</xs:simpleType>

<xs:simpleType name="AggregationsValue">
    <xs:restriction base="xs:string">
       <xs:pattern value="On|.*" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="AssemblyClass">
    <xs:restriction base="xs:string">
      <xs:maxLength value="255" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="AssemblyStrongName">
    <xs:restriction base="xs:string">
      <xs:maxLength value="255" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ContentTypeId">
    <xs:restriction base="xs:string">
      <xs:pattern value="0x([0-9A-Fa-f][1-9A-Fa-f]|[1-9A-Fa-f][0-9A-Fa-f]|00[0-9A-Fa-
f]{32})*" />
      <xs:minLength value="2"/>
      <xs:maxLength value="1026"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="FALSE_Case_Insensitive_Else_Anything">
    <xs:restriction base="xs:string">
      <xs:pattern value="[Ff][Aa][Ll][Ss][Ee]|.*" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="FieldAggregationAttribute">
    <xs:restriction base="xs:string">
      <xs:enumeration value="average" />
      <xs:enumeration value="count" />
      <xs:enumeration value="first" />
      <xs:enumeration value="last" />
```

```
                <xs:enumeration value="max" />
                <xs:enumeration value="merge" />
                <xs:enumeration value="min" />
                <xs:enumeration value="plaintext" />
                <xs:enumeration value="signature" />
                <xs:enumeration value="sum" />
            </xs:restriction>
        </xs:simpleType>

        <xs:simpleType name="FieldInternalType">
            <xs:restriction base="xs:string">
                <xs:pattern
 value="[iI][nN][tT][eE][gG][eE][rR]|[tT][eE][xX][tT]|[nN][oO][tT][eE]|[dD][aA][tT][eE][tT][iI
 ][mM][eE]|[cC][oO][uU][nN][tT][eE][rR]|[cC][hH][oO][iI][cC][eE]|[lL][oO][oO][kK][uU][pP]|[bB]
 [oO][oO][lL][eE][aA][nN]|[nN][uU][mM][bB][eE][rR]|[cC][uU][rR][rR][eE][nN][cC][yY]|[uU][rR][l
 L]|[cC][oO][mM][pP][uU][tT][eE][dD]|[tT][hH][rR][eE][aA][dD][iI][nN][gG]|[gG][uU][iI][dD]|[mM
 ][uU][lL][tT][iI][cC][hH][oO][iI][cC][eE]|[gG][rR][iI][dD][cC][hH][oO][iI][cC][eE]|[cC][aA][l
 L][cC][uU][lL][aA][tT][eE][dD]|[fF][iI][lL][eE]|[aA][tT][tT][aA][cC][hH][mM][eE][nN][tT][sS]|
 [uU][sS][eE][rR]|[rR][eE][cC][uU][rR][rR][eE][nN][cC][eE]|[cC][rR][oO][sS][sS][pP][rR][oO][jJ
 ][eE][cC][tT][lL][iI][nN][kK]|[mM][oO][dD][sS][tT][aA][tT]|[eE][rR][rR][oO][rR]|[cC][oO][nN][
 tT][eE][nN][tT][tT][yY][pP][eE][iI][dD]|[pP][aA][gG][eE][sS][eE][pP][aA][rR][aA][tT][oO][rR]|
 [tT][hH][rR][eE][aA][dD][iI][nN][dD][eE][xX]|[wW][oO][rR][kK][fF][lL][oO][wW][sS][tT][aA][tT]
 [uU][sS]|[aA][lL][lL][dD][aA][yY][eE][vV][eE][nN][tT]|[wW][oO][rR][kK][fF][lL][oO][wW][eE][vV
 ][eE][nN][tT][tT][yY][pP][eE]" />
            </xs:restriction>
        </xs:simpleType>

        <xs:simpleType name="FieldRefType">
            <xs:restriction base="xs:string">
                <xs:enumeration value="Recurrence" />
                <xs:enumeration value="EventType" />
                <xs:enumeration value="UID" />
                <xs:enumeration value="RecurrenceId" />
                <xs:enumeration value="EventCancel" />
                <xs:enumeration value="StartDate" />
                <xs:enumeration value="EndDate" />
                <xs:enumeration value="RecurData" />
                <xs:enumeration value="Duration" />
                <xs:enumeration value="TimeZone" />
                <xs:enumeration value="XMLTZone" />
                <xs:enumeration value="CPLink" />
                <xs:enumeration value="LinkURL" />
                <xs:enumeration value="MasterSeriesItemID" />
                <xs:enumeration value="AllDayEvent" />
            </xs:restriction>
        </xs:simpleType>

        <xs:simpleType name="FieldRichTextMode">
            <xs:restriction base="xs:string">
                <xs:enumeration value="Compatible"/>
                <xs:enumeration value="FullHtml"/>
                <xs:enumeration value="HtmlAsXml"/>
                <xs:enumeration value="ThemeHtml"/>
            </xs:restriction>
        </xs:simpleType>

        <xs:simpleType name="FormType">
            <xs:restriction base="xs:string">
                <xs:enumeration value="DisplayForm" />
                <xs:enumeration value="EditForm" />
```

```
          <xs:enumeration value="NewForm" />
          <xs:enumeration value="NewFormDialog" />
          <xs:enumeration value="SolutionForm" />
              </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="IMEMode">
    <xs:restriction base="xs:string">
      <xs:enumeration value="inactive" />
      <xs:enumeration value="auto" />
      <xs:enumeration value="active" />
      <xs:enumeration value="disabled" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="IntNonNegative">
    <xs:restriction base="xs:int">
      <xs:minInclusive value="0" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="IntPositive">
    <xs:restriction base="xs:int">
      <xs:minInclusive value="1" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="JoinType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="INNER" />
      <xs:enumeration value="LEFT OUTER" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ListTemplateBaseType">
    <xs:restriction base="xs:int ">
      <xs:enumeration value="0" />
      <xs:enumeration value="1" />
      <xs:enumeration value="3" />
      <xs:enumeration value="4" />
      <xs:enumeration value="5" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ListTemplateCategoryType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Libraries" />
      <xs:enumeration value="Communications" />
      <xs:enumeration value="Tracking" />
      <xs:enumeration value="Custom Lists" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="RelationshipDeleteBehaviorAttribute">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Cascade" />
      <xs:enumeration value="Restrict" />
      <xs:enumeration value="None" />
    </xs:restriction>
```

```xml
</xs:simpleType>

<xs:simpleType name="RelativeFilePath">
  <xs:restriction base="xs:string" >
    <xs:minLength value="0" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="RelativeUrl">
  <xs:restriction base="xs:string" >
    <xs:maxLength value="255" />
    <xs:minLength value="0" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="String255Chars">
  <xs:restriction base="xs:string">
    <xs:maxLength value="255" />
    <xs:minLength value="0" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="TextDirection">
  <xs:restriction base="xs:string">
    <xs:enumeration value="ltr" />
    <xs:enumeration value="rtl" />
    <xs:enumeration value="none" />
    <xs:enumeration value="None" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="ToolbarPosition">
  <xs:restriction base="xs:string">
    <xs:enumeration value="After" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="ToolbarType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Standard" />
    <xs:enumeration value="FreeForm" />
    <xs:enumeration value="RelatedTasks" />
    <xs:enumeration value="None" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="truefalse_Only_Lowercase">
  <xs:restriction base="xs:boolean">
    <xs:pattern value="true|false"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="TRUE_Case_Insensitive_Else_Anything">
  <xs:restriction base="xs:string">
    <xs:pattern value="[Tt][Rr][Uu][Ee]|.*" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="TRUE_Case_Sensitive_Else_Anything">
```

```xml
    <xs:restriction base="xs:string">
      <xs:pattern value="TRUE|.*" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="TRUE_NegOne_Else_Anything">
    <xs:restriction base="xs:string">
      <xs:pattern value="(TRUE)|(\-1)|.*" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="TRUE_If_Present">
    <xs:restriction base="xs:string"/>
  </xs:simpleType>

  <xs:simpleType name="TRUEFALSE">
    <xs:restriction base="xs:string">
      <xs:pattern value="[Tt][Rr][Uu][Ee]|[Ff][Aa][Ll][Ss][Ee]"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="UniqueIdentifierWithBraces">
    <xs:restriction base="xs:string">
      <xs:pattern value="\{[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-
[0-9a-fA-F]{12}\}"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="UniqueIdentifierWithBracesOrEmpty">
    <xs:restriction base="xs:string">
      <xs:pattern value="\{[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-
[0-9a-fA-F]{12}\}|"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="UniqueIdentifierWithOrWithoutBraces">
    <xs:restriction base="xs:string">
      <xs:pattern value="\{?[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-
[0-9a-fA-F]{12}\}?"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="UniqueIdentifierWithOrWithoutBracesWithOrWithoutDashes">
    <xs:restriction base="xs:string">
      <xs:pattern value="\{?[0-9a-fA-F]{8}\-?[0-9a-fA-F]{4}\-?[0-9a-fA-F]{4}\-?[0-9a-fA-
F]{4}\-?[0-9a-fA-F]{12}\}?"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="UniqueIdentifierWithoutBraces">
    <xs:restriction base="UniqueIdentifierWithoutBracesOrEmpty">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="UniqueIdentifierWithoutBracesOrEmpty">
    <xs:restriction base="xs:string">
      <xs:pattern value="[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-
9a-fA-F]{12}|"/>
```

```xml
      <xs:minLength value="0"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ViewModerationType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Moderator" />
      <xs:enumeration value="Contributor" />
      <xs:enumeration value="HideUnapproved" />
      <xs:enumeration value="" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ViewPageLevel">
    <xs:restriction base="xs:int ">
      <xs:enumeration value="1" />
      <xs:enumeration value="2" />
      <xs:enumeration value="255" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ViewScope">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Recursive" />
      <xs:enumeration value="RecursiveAll" />
      <xs:enumeration value="FilesOnly" />
      <xs:enumeration value="" />
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="ViewType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="HTML" />
      <xs:enumeration value="GRID" />
      <xs:enumeration value="CALENDAR" />
      <xs:enumeration value="RECURRENCE" />
      <xs:enumeration value="CHART" />
      <xs:enumeration value="GANTT" />
      <xs:enumeration value="TABLE" />

    </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="AggregationsDefinition">
    <xs:sequence>
      <xs:element name="FieldRef" type="FieldRefDefinitionAggregation" minOccurs="0"
maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="Value" type="AggregationsValue" use="optional"/>
  </xs:complexType>

  <xs:complexType name="CalendarViewStyleDefinition" mixed="true">
    <xs:all>
      <xs:element name="AccessKey" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="ImageName" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="ImageWidth" type="xs:int" minOccurs="0" maxOccurs="1" />
      <xs:element name="ImageHeight" type="xs:int" minOccurs="0" maxOccurs="1" />
    </xs:all>
    <xs:attribute name="Title" type="xs:string" />
```

```xml
        <xs:attribute name="Type" type="xs:string" />
        <xs:attribute name="Template" type="xs:string" />
        <xs:attribute name="Sequence" type="xs:int" />
        <xs:attribute name="Default" type="TRUEFALSE" default="FALSE"/>
    </xs:complexType>

    <xs:complexType name="CalendarViewStylesDefinition" mixed="true">
      <xs:sequence>
        <xs:element name="CalendarViewStyle" type="CalendarViewStyleDefinition" minOccurs="0"
maxOccurs="unbounded" />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="CamlQueryRoot">
      <xs:all>
        <xs:element name="Where" type="LogicalJoinDefinition" minOccurs="0" maxOccurs="1" />
        <xs:element name="OrderBy" type="OrderByDefinition" minOccurs="0" maxOccurs="1" />
        <xs:element name="GroupBy" type="GroupByDefinition" minOccurs="0" maxOccurs="1" />
        <xs:element name="WithIndex" type="LogicalWithIndexDefinition" minOccurs="0"
maxOccurs="1" />
      </xs:all>
    </xs:complexType>

    <xs:complexType name="CHOICEDEFINITION" mixed="true">
      <xs:attribute name="JumpTo" type="xs:string" />
    </xs:complexType>

    <xs:complexType name="CHOICEDEFINITIONS">
      <xs:sequence>
        <xs:element name="CHOICE" type="CHOICEDEFINITION" minOccurs="0" maxOccurs="unbounded"
/>
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="ContentTypeDatabase">
      <xs:sequence>
        <xs:choice minOccurs="0" maxOccurs="unbounded">
          <xs:element name="ContentTypeRef" type="ContentTypeReference" />
          <xs:element name="ContentType" type="ContentTypeDefinitionTP" />
        </xs:choice>
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="ContentTypeDefinition">
      <xs:all>
        <xs:element name="Fields" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1" />
        <xs:element name="FieldRefs" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1"
/>
        <xs:element name="XmlDocuments" type="XmlDocumentDefinitionCollection" minOccurs="0"
maxOccurs="1" />
        <xs:element name="Folder" type="FolderReference" minOccurs="0" maxOccurs="1" />
        <xs:element name="DocumentTemplate" type="ContentTypeDocumentTemplateDefinition"
minOccurs="0" maxOccurs="1" />
      </xs:all>
      <xs:attribute name="ID" type="ContentTypeId" use="required" />
      <xs:attribute name="Name" type="xs:string" use="required" />
      <xs:attribute name="Group" type="xs:string" use="optional" />
      <xs:attribute name="ReadOnly" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
```

```xml
    <xs:attribute name="Hidden" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
    <xs:attribute name="Description" type="xs:string" use="optional" />
    <xs:attribute name="Sealed" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="V2ListTemplateName" type="xs:string" use="optional"/>
    <xs:attribute name="Version" type="IntNonNegative" use="optional" default="0" />
    <xs:attribute name="FeatureId" type="UniqueIdentifierWithBraces" use="optional" />
    <xs:attribute name="Edited" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="ProgId" type="xs:string" use="optional" />
    <xs:attribute name="RequireClientRenderingOnNew" type="TRUE_Case_Sensitive_Else_Anything"
use="optional" default="TRUE" />
  </xs:complexType>

  <xs:complexType name="ContentTypeDefinitionTP">
    <xs:all>
      <xs:element name="Fields" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1" />
<xs:element name="FieldRefs" type="FieldRefDefinitionCTs" minOccurs="0" maxOccurs="1" />
      <xs:element name="XmlDocuments" type="XmlDocumentDefinitionCollection" minOccurs="0"
maxOccurs="1" />
      <xs:element name="Folder" type="FolderReference" minOccurs="0" maxOccurs="1" />
      <xs:element name="DocumentTemplate" type="ContentTypeDocumentTemplateDefinition"
minOccurs="0" maxOccurs="1" />
    </xs:all>
    <xs:attribute name="ID" type="ContentTypeId" use="required" />
    <xs:attribute name="Name" type="xs:string" use="optional" />
    <xs:attribute name="Group" type="xs:string" use="optional" />
    <xs:attribute name="ReadOnly" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
    <xs:attribute name="Hidden" type="TRUE_NegOne_Else_Anything" use="optional"
default="FALSE"/>
    <xs:attribute name="Description" type="xs:string" use="optional" />
    <xs:attribute name="Sealed" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="V2ListTemplateName" type="xs:string" use="optional"/>
    <xs:attribute name="Version" type="IntNonNegative" use="optional" default="0" />
    <xs:attribute name="FeatureId" type="UniqueIdentifierWithBraces" use="optional" />
    <xs:attribute name="Edited" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="ProgId" type="xs:string" use="optional" />
    <xs:attribute name="NewDocumentControl" type="xs:string" use="optional" />
    <xs:attribute name="PushDownChangedResourceFilesOnly"
type="TRUE_Case_Sensitive_Else_Anything" use="optional" default="FALSE" />
    <xs:attribute name="RequireClientRenderingOnNew" type="TRUE_Case_Sensitive_Else_Anything"
use="optional" default="TRUE" />
  </xs:complexType>

  <xs:complexType name="ContentTypeReference">
    <xs:all>
      <xs:element name="Folder" type="FolderReference" minOccurs="0" maxOccurs="1" />
      <xs:element name="DocumentTemplate" type="ContentTypeDocumentTemplateDefinition"
minOccurs="0" maxOccurs="1" />
    </xs:all>
    <xs:attribute name="ID" type="ContentTypeId" use="required" />
    <xs:attribute name="Edited" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
  </xs:complexType>

<xs:complexType name="ContentTypeReferences">
```

```xml
      <xs:sequence>
        <xs:choice minOccurs="0" maxOccurs="unbounded">
          <xs:element name="ContentTypeRef" type="ContentTypeReference" />
          <xs:element name="ContentType" type="ContentTypeDefinition" />
        </xs:choice>
      </xs:sequence>
  </xs:complexType>

    <xs:complexType name="ContentTypeDocumentTemplateDefinition">
      <xs:simpleContent>
        <xs:extension base="xs:string">
          <xs:attribute name="TargetName" type="RelativeUrl" use="required"/>
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>

    <xs:complexType name="ExtendedLogicalJoinDefinition">
      <xs:sequence>
        <xs:choice minOccurs="2" maxOccurs="2">
          <xs:element name="And" type="ExtendedLogicalJoinDefinition" />
          <xs:element name="BeginsWith" type="LogicalTestDefinition" />
          <xs:element name="Contains" type="LogicalTestDefinition" />
          <xs:element name="DateRangesOverlap" type="LogicalTestDefinitionDateRange" />
          <xs:element name="Eq" type="LogicalTestDefinition" />
          <xs:element name="Geq" type="LogicalTestDefinition" />
          <xs:element name="Gt" type="LogicalTestDefinition" />
          <xs:element name="In" type="LogicalTestInValuesDefinition" />
          <xs:element name="Includes" type="LogicalTestDefinition" />
          <xs:element name="IsNull" type="LogicalNullDefinition" />
          <xs:element name="IsNotNull" type="LogicalNullDefinition" />
          <xs:element name="Leq" type="LogicalTestDefinition" />
          <xs:element name="Lt" type="LogicalTestDefinition" />
          <xs:element name="Membership" type="MembershipDefinition" />
          <xs:element name="Neq" type="LogicalTestDefinition" />
          <xs:element name="NotIncludes" type="LogicalTestDefinition" />
          <xs:element name="Or" type="ExtendedLogicalJoinDefinition" />
        </xs:choice>
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="FieldDefinitionCTRemove">
      <xs:complexContent>
        <xs:extension base="FieldDefinition"/>
      </xs:complexContent>
    </xs:complexType>

    <xs:complexType name="FieldDefinitions">
      <xs:sequence>
        <xs:element name="Field" type="FieldDefinition" minOccurs="0" maxOccurs="unbounded" />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="FieldParserRef">
      <xs:attribute name="Name" type="xs:string" />
      <xs:attribute name="ProgId" type="xs:string" />
    </xs:complexType>

    <xs:complexType name="FieldParserRefs">
      <xs:sequence>
```

```xml
      <xs:element name="ParserRef" type="FieldParserRef" minOccurs="0" maxOccurs="unbounded"
 />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="FieldDefinition" mixed="true">
    <xs:all>
      <xs:element name="CHOICES" type="CHOICEDEFINITIONS" minOccurs="0" maxOccurs="1" />
      <xs:element name="Customization" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="1" maxOccurs="1" namespace="##any" processContents="skip" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Default" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="DefaultFormula" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="DisplayBidiPattern" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
 processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="DisplayPattern" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
 processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="FieldRefs" minOccurs="0" maxOccurs="1">
        <xs:complexType mixed="true">
          <xs:sequence>
            <xs:element name="FieldRef" type="FieldRefDefinitionField" minOccurs="0"
 maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Formula" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="FormulaDisplayNames" type="xs:string" minOccurs="0" maxOccurs="1" />
      <xs:element name="MAPPINGS" type="MAPPINGDEFINITIONS" minOccurs="0" maxOccurs="1" />
      <xs:element name="ParserRefs" type="FieldParserRefs" minOccurs="0" maxOccurs="1" />
      <xs:element name="Validation" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
 processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
    </xs:all>
    <xs:attribute name="Aggregation" type="FieldAggregationAttribute" default="first"/>
    <xs:attribute name="aggregation" type="xs:string" />
```

```xml
<xs:attribute name="AllowDeletion" type="TRUEFALSE" default="TRUE" />
<xs:attribute name="AllowHyperlink" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="AllowMultiVote" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="AppendOnly" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="AuthoringInfo" type="xs:string" default=""/>
<xs:attribute name="BaseRenderingType" type="FieldInternalType" />
<xs:attribute name="BaseType" type="FieldInternalType" default="Text" />
<xs:attribute name="Calculated" type="xs:string" />
<xs:attribute name="CalType" type="xs:int" />
<xs:attribute name="CalendarType" type="xs:int" />
<xs:attribute name="CAMLRendering" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="CanToggleHidden" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="CountRelated" type="TRUE_If_Present" default="FALSE" />
<xs:attribute name="ClassInfo" type="xs:string" default="" />
<xs:attribute name="ColName" type="xs:string" />
<xs:attribute name="ColName2" type="xs:string" />
<xs:attribute name="Commas" type="TRUEFALSE" />
<xs:attribute name="Customization" type="xs:string" />
<xs:attribute name="Decimals" type="xs:int" default="-1"/>
<xs:attribute name="DefaultListField" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="DefaultURLDesc" type="xs:string" />
<xs:attribute name="Description" type="xs:string" />
<xs:attribute name="Direction" type="TextDirection" default="none" />
<xs:attribute name="Dir" type="xs:string" />
<xs:attribute name="DisplaceOnUpgrade" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="DisplayImage" type="xs:string" />
<xs:attribute name="DisplayName" type="xs:string" />
<xs:attribute name="DisplayNameSrcField" type="xs:string" />
<xs:attribute name="DisplaySize" type="xs:int" />
<xs:attribute name="Div" type="xs:string" default="1.0" />
<xs:attribute name="EnableLookup" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="EnforceUniqueValues" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="ExceptionImage" type="xs:string" />
<xs:attribute name="FieldRef" type="xs:string" />
<xs:attribute name="FillInChoice" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="Filterable" type="TRUEFALSE" default="TRUE" />
<xs:attribute name="FilterableNoRecurrence" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="ForcedDisplay" type="xs:string" />
<xs:attribute name="ForcePromoteDemote" type="TRUE_If_Present" />
<xs:attribute name="Format" type="xs:string" />
<xs:attribute name="FromBaseType" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="GridEndNum" type="xs:int" />
<xs:attribute name="GridNATxt" type="xs:string" default="" />
<xs:attribute name="GridStartNum" type="IntPositive" />
<xs:attribute name="GridTxtRng1" type="xs:string" default="" />
<xs:attribute name="GridTxtRng2" type="xs:string" default="" />
<xs:attribute name="GridTxtRng3" type="xs:string" default="" />
<xs:attribute name="Group" type="xs:string" />
<xs:attribute name="HeaderImage" type="xs:string" />
<xs:attribute name="Height" type="xs:int" />
<xs:attribute name="Hidden" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" />
<xs:attribute name="Id" type="xs:string" />
<xs:attribute name="IMEMode" type="IMEMode" />
<xs:attribute name="Indexed" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="ImnHeader" type="xs:string" />
<xs:attribute name="IsolateStyles" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="IsRelationship" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="JoinColName" type="xs:string" default="tp_ID" />
```

```
<xs:attribute name="JoinRowOrdinal" type="xs:int" fixed="0" />
<xs:attribute name="JoinType" type="JoinType" default="LEFT OUTER" />
<xs:attribute name="JumpTo" type="xs:string" />
<xs:attribute name="JumpToFillinChoice" type="xs:string" />
<xs:attribute name="JumpToNo" type="xs:string" />
<xs:attribute name="JumpToYes" type="xs:string" />
<xs:attribute name="LCID" type="xs:int" />
<xs:attribute name="LinkToItem" type="TRUE_Case_Sensitive_Else_Anything" />
<xs:attribute name="LinkToItemAllowed" type="xs:string" />
<xs:attribute name="List" type="xs:string" />
<xs:attribute name="ListItemMenu" type="TRUE_Case_Sensitive_Else_Anything" />
<xs:attribute name="ListItemMenuAllowed" type="xs:string" />
<xs:attribute name="Max" type="xs:float" />
<xs:attribute name="MaxLength" type="xs:int" />
<xs:attribute name="maxLength" type="xs:string" />
<xs:attribute name="Min" type="xs:string" />
<xs:attribute name="Mult" type="xs:string" />
<xs:attribute name="Name" type="xs:string" use="required" />
<xs:attribute name="NegativeFormat" type="xs:string" />
<xs:attribute name="node" type="xs:string" />
<xs:attribute name="Node" type="xs:string" />
<xs:attribute name="NoEditFormBreak" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="NumLines" type="xs:string" default="6" />
<xs:attribute name="Percentage" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="PIAttribute" type="xs:string" />
<xs:attribute name="PITarget" type="xs:string" />
<xs:attribute name="PrependId" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="Presence" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="PreviousName" type="xs:string" />
<xs:attribute name="PrimaryKey" type="TRUEFALSE" />
<xs:attribute name="PrimaryPIAttribute" type="xs:string" />
<xs:attribute name="PrimaryPITarget" type="xs:string" />
<xs:attribute name="ReadOnly" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="ReadOnlyEnforced" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="RelationshipDeleteBehavior"
type="RelationshipDeleteBehaviorAttribute" default="None" />
<xs:attribute name="RenderXMLUsingPattern" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="Required" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="RestrictedMode" type="TRUEFALSE" default="TRUE" />
<xs:attribute name="ResultType" type="FieldInternalType" />
<xs:attribute name="ResyncOnChange" type="TRUEFALSE" default="FALSE"/>
<xs:attribute name="RichText" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="RichTextMode" type="FieldRichTextMode" default="Compatible" />
<xs:attribute name="RowOrdinal" type="xs:int" default="0" />
<xs:attribute name="RowOrdinal2" type="xs:int" default="0" />
<xs:attribute name="Sealed" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="SeparateLine" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="SetAs" type="xs:string" />
<xs:attribute name="ShowAddressBookButton" type="TRUEFALSE" default="FALSE" />
<xs:attribute name="ShowField" type="xs:string" />
<xs:attribute name="ShowInDisplayForm" type="TRUEFALSE" />
<xs:attribute name="ShowInEditForm" type="TRUEFALSE" default="TRUE" />
<xs:attribute name="ShowInFileDialog" type="TRUEFALSE" />
<xs:attribute name="ShowInFileDlg" type="TRUEFALSE" />
<xs:attribute name="ShowInListSettings" type="TRUEFALSE" />
<xs:attribute name="ShowInNewForm" type="TRUEFALSE" default="TRUE" />
<xs:attribute name="ShowInVersionHistory" type="TRUEFALSE" />
<xs:attribute name="ShowInViewForms" type="TRUEFALSE" />
<xs:attribute name="Sortable" type="TRUEFALSE" />
```

```xml
      <xs:attribute name="SourceID" type="xs:string" />
      <xs:attribute name="StaticName" type="xs:string" />
      <xs:attribute name="StorageTZ" type="xs:string" />
      <xs:attribute name="StripWS" type="xs:string" />
      <xs:attribute name="SuppressNameDisplay" type="TRUEFALSE" />
      <xs:attribute name="TextOnly" type="TRUEFALSE" />
      <xs:attribute name="Title" type="xs:string" />
      <xs:attribute name="TitleField" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="Type" type="xs:string" use="required" />
      <xs:attribute name="UniqueId" type="xs:string" />
      <xs:attribute name="UnlimitedLengthInDocumentLibrary" type="TRUEFALSE" />
      <xs:attribute name="URLEncode" type="TRUEFALSE" />
      <xs:attribute name="URLEncodeAsURL" type="TRUEFALSE" />
      <xs:attribute name="UserSelectionMode" type="xs:string" />
      <xs:attribute name="UserSelectionScope" type="xs:int" />
      <xs:attribute name="Version" type="xs:int" default="0" />
      <xs:attribute name="Viewable" type="FALSE_Case_Insensitive_Else_Anything" />
      <xs:attribute name="WebId" type="UniqueIdentifierWithoutBraces" />
      <xs:attribute name="Width" type="xs:int" />
      <xs:attribute name="WikiLinking" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="WorkflowStatusURL" type="xs:string" use="optional" />
      <xs:attribute name="XName" type="xs:string" />
      <xs:anyAttribute namespace="##other" processContents="lax" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionAggregation">
    <xs:attribute name="Name" type="xs:string" use="required"/>
    <xs:attribute name="Type" type="AggregationsType" use="required"/>
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionCT">
    <xs:all>
      <xs:element name="Default" type="xs:string" minOccurs="0" maxOccurs="1" />
    </xs:all>
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
    <xs:attribute name="Required" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="Hidden" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="Customization" type="xs:string" use="optional" />
    <xs:attribute name="ShowInNewForm" type="FALSE_Case_Insensitive_Else_Anything"
use="optional" default="TRUE" />
    <xs:attribute name="ShowInEditForm" type="FALSE_Case_Insensitive_Else_Anything"
use="optional" default="TRUE" />
    <xs:attribute name="DisplayName" type="xs:string" use="optional" />
    <xs:attribute name="ReadOnly" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
    <xs:attribute name="PITarget" type="xs:string" use="optional" />
    <xs:attribute name="PrimaryPITarget" type="xs:string" use="optional" />
    <xs:attribute name="PIAttribute" type="xs:string" use="optional" />
    <xs:attribute name="PrimaryPIAttribute" type="xs:string" use="optional" />
    <xs:attribute name="Aggregation" type="xs:string" use="optional" />
    <xs:attribute name="Node" type="xs:string" use="optional" />
    <xs:attribute name="Format" type="xs:string" use="optional" />
    <xs:attribute name="NumLines" type="xs:string" default="6" />
    <xs:attribute name="Sealed" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="FALSE" />
```

```xml
    <xs:attribute name="Sortable" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="TRUE" />
    <xs:attribute name="FromBaseType" type="TRUE_Case_Insensitive_Else_Anything"
use="optional" default="FALSE" />
    <xs:attribute name="Filterable" type="TRUE_Case_Sensitive_Else_Anything" use="optional"
default="TRUE" />
    <xs:attribute name="FilterableNoRecurrence" type="TRUE_Case_Sensitive_Else_Anything"
use="optional" default="FALSE" />
    <xs:attribute name="ShowInDisplayForm" use="optional" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="ShowInFileDlg" type="FALSE_Case_Insensitive_Else_Anything"
use="optional" default="TRUE" />
    <xs:attribute name="ShowInListSettings" use="optional" type="TRUEFALSE" default="FALSE"
/>
    <xs:attribute name="Description" type="xs:string" use="optional" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionCTs" mixed="true" >
    <xs:sequence>
      <xs:choice minOccurs="0" maxOccurs="unbounded">
        <xs:element name="FieldRef" type="FieldRefDefinitionCT" />
        <xs:element name="Field" type="FieldDefinitionCTRemove" />
      </xs:choice>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionField" mixed="true" >
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
    <xs:attribute name="ShowField" type="xs:string" use="optional" />
    <xs:attribute name="RefType" type="FieldRefType" use="optional" />
    <xs:attribute name="CreateURL" type="xs:string" use="optional" />
    <xs:attribute name="Key" type="xs:string" use="optional" />
    <xs:attribute name="DisplayName" type="xs:string" use="optional" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionGroupBy">
    <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
    <xs:attribute name="Name" type="xs:string" />
    <xs:attribute name="Ascending" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionOrderBy">
    <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
    <xs:attribute name="Name" type="xs:string" use="optional" />
    <xs:attribute name="Ascending" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionQueryDate">
    <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
    <xs:attribute name="Name" type="xs:string" use="optional" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionQueryNull">
    <xs:attribute name="Name" type="xs:string" use="required" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionQueryTest">
    <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="optional" />
```

```xml
        <xs:attribute name="Name" type="xs:string" use="optional" />
        <xs:attribute name="LookupId" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE" />
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionView">
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="Explicit" type="TRUE_If_Present" use="optional" default="FALSE"/>
  </xs:complexType>

  <xs:complexType name="FieldRefDefinitionViewData">
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="Type" type="xs:string" use="required" />
  </xs:complexType>

  <xs:complexType name="FolderReference">
    <xs:sequence />
    <xs:attribute name="TargetName" type="RelativeUrl" use="required" />
  </xs:complexType>

  <xs:complexType name="FormatDefDefinition">
    <xs:simpleContent>
      <xs:extension base="xs:string">
        <xs:attribute name="Type" type="xs:string" use="required" />
        <xs:attribute name="Value" type="xs:string" use="required" />
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>

  <xs:complexType name="FormatDefinition">
    <xs:sequence>
      <xs:element name="FormatDef" type="FormatDefDefinition" minOccurs="0"
maxOccurs="unbounded" />
    </xs:sequence>
     <xs:attribute name="Name" type="xs:string" use="required" />
  </xs:complexType>

  <xs:complexType name="FormDefinition">
    <xs:all>
      <xs:element name="ListFormOpening" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ListFormButtons" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="ListFormBody" minOccurs="0" maxOccurs="1">
        <xs:complexType>
```

```xml
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ListFormClosing" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
      </xs:all>
      <xs:attribute name="Path" type="RelativeFilePath" />
      <xs:attribute name="SetupPath" type="RelativeFilePath" />
      <xs:attribute name="Url" type="RelativeUrl" />
      <xs:attribute name="Type" type="FormType" />
      <xs:attribute name="UseLegacyForm" type="TRUEFALSE" default="FALSE"/>
      <xs:attribute name="Template" type="xs:string" />
      <xs:attribute name="WebPartZoneID" type="xs:string" />
      <xs:attribute name="FormID" type="xs:int" default="0"  />
      <xs:attribute name="Name" type="UniqueIdentifierWithBraces" />
      <xs:attribute name="ToolbarTemplate" type="xs:string" />
      <xs:attribute name="Default" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="MobileUrl" type="RelativeUrl" />
    </xs:complexType>

    <xs:complexType name="FormDefinitions">
      <xs:sequence>
        <xs:element name="Form" type="FormDefinition" minOccurs="0" maxOccurs="unbounded" />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="GroupByDefinition">
      <xs:sequence>
        <xs:element name="FieldRef" type="FieldRefDefinitionGroupBy" minOccurs="0"
maxOccurs="unbounded" />
      </xs:sequence>
      <xs:attribute name="Collapse" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE"/>
      <xs:attribute name="GroupLimit" type="IntNonNegative" use="optional" default="100"/>
    </xs:complexType>

    <xs:complexType name="ListDefinition">
      <xs:all>
        <xs:element name="MetaData" type="ListMetaDataDefinition" minOccurs="1" maxOccurs="1"
form="qualified" />
      </xs:all>
      <xs:attribute name="AllowDeletion" type="TRUEFALSE" default="TRUE" />
      <xs:attribute name="AllowEveryoneViewItems" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="AllowMultiVote" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="AlwaysIncludeContent" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="BaseType" type="xs:int" use="required" />
      <xs:attribute name="CacheSchema" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="Catalog" type="TRUEFALSE" default="FALSE" />
```

```
      <xs:attribute name="DefaultItemOpen" type="xs:int" default="0" />
      <xs:attribute name="Description" type="xs:string" use="required" />
      <xs:attribute name="Direction" type="xs:int" use="required" />
      <xs:attribute name="DisableAttachments" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="DisableDeployingList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="DisableDeployWithDependentList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="DisallowContentTypes" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="DontSaveInTemplate" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="DraftVersionVisibility" type="xs:int" default="0" />
      <xs:attribute name="EmailAssignTo" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="EnableContentTypes" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="EnableMinorVersions" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="EnableThumbnails" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="EventSinkAssembly" type="AssemblyStrongName" />
      <xs:attribute name="EventSinkClass" type="AssemblyClass" />
      <xs:attribute name="EventSinkData" type="String255Chars" />
      <xs:attribute name="FeatureId" type="UniqueIdentifierWithBraces" />
      <xs:attribute name="FolderCreation" type="TRUEFALSE" default="TRUE" />
      <xs:attribute name="ForceCheckout" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="HiddenList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="MajorVersionLimit" type="IntNonNegative" />
      <xs:attribute name="MajorWithMinorVersionsLimit" type="IntNonNegative" />
      <xs:attribute name="ModerationType" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="MultipleMtgDataList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="MustSaveRootFiles" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="Name" type="xs:string" />
      <xs:attribute name="OrderedList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="PrivateList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="PublicList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="RestrictedTemplate" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="RootWebOnly" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="ServerTemplate" type="xs:int" />
      <xs:attribute name="SuppressNameDisplay" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="ThumbnailSize" type="xs:int" default="0" />
      <xs:attribute name="Title" type="xs:string" use="required" />
      <xs:attribute name="Url" type="RelativeUrl" />
      <xs:attribute name="Version" type="xs:int" />
      <xs:attribute name="VersioningEnabled" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="WebImageHeight" type="xs:int" default="0" />
      <xs:attribute name="WebImageWidth" type="xs:int" default="0" />
    </xs:complexType>

    <xs:complexType name="ListFormSet">
      <xs:sequence>
        <xs:element name="Form" type="FormDefinition" minOccurs="0" maxOccurs="4" />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="ListMetaDataDefault">
      <xs:sequence>
        <xs:element name="Forms" type="ListFormSet" />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="ListMetaDataDefinition">
      <xs:all>
        <xs:element name="ContentTypes" type="ContentTypeReferences" minOccurs="0"
  maxOccurs="1" />
        <xs:element name="Default" type="ListMetaDataDefault" minOccurs="0" maxOccurs="1" />
```

```
        <xs:element name="DefaultDescription" type="xs:string" minOccurs="0" maxOccurs="1" />
        <xs:element name="DocumentLibraryTemplate" type="xs:string" minOccurs="0" maxOccurs="1"
 />
        <xs:element name="Fields" type="FieldDefinitions" minOccurs="0" maxOccurs="1" />
        <xs:element name="Forms" type="ListFormSet" minOccurs="0" maxOccurs="1" />
        <xs:element name="Security" type="ListSecurity" minOccurs="0" maxOccurs="1" />
        <xs:element name="Toolbar" type="ToolbarDefinition" minOccurs="0" maxOccurs="1" />
        <xs:element name="Validation" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
 processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="Views" type="ViewDefinitions" minOccurs="0" maxOccurs="1" />
      </xs:all>
  </xs:complexType>

  <xs:complexType name="ListSecurity">
    <xs:all>
      <xs:element name="ReadSecurity" type="xs:int" minOccurs="0" maxOccurs="1" />
      <xs:element name="WriteSecurity" type="xs:int" minOccurs="0" maxOccurs="1" />
      <xs:element name="SchemaSecurity" type="xs:int" minOccurs="0" maxOccurs="1" />
    </xs:all>
  </xs:complexType>

  <xs:complexType name="ListTemplateDefinition">
    <xs:attribute name="AllowDeletion" type="TRUEFALSE" default="TRUE" />
    <xs:attribute name="AllowEveryoneViewItems" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="AlwaysIncludeContent" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="BaseType" type="ListTemplateBaseType" use="required" />
    <xs:attribute name="CacheSchema" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Catalog" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Category" type="ListTemplateCategoryType" />
    <xs:attribute name="Description" type="xs:string" />
    <xs:attribute name="DisableAttachments" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DisallowContentTypes" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DisplayName" type="xs:string" />
    <xs:attribute name="DocumentAsEnclosure" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DocumentTemplate" type="xs:int" />
    <xs:attribute name="DontSaveInTemplate" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DraftVersionVisibility" type="xs:int" default="0" />
    <xs:attribute name="EditPage" type="xs:string" />
    <xs:attribute name="EmailAssignTo" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableContentTypes" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableMinorVersions" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="EnableThumbnails" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="FeatureId"
 type="UniqueIdentifierWithOrWithoutBracesWithOrWithoutDashes" />
    <xs:attribute name="FolderCreation" type="TRUEFALSE" default="TRUE" />
    <xs:attribute name="ForceCheckout" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Hidden" type="TRUEFALSE" default="FALSE"/>
    <xs:attribute name="HiddenList" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Image" type="RelativeUrl" />
    <xs:attribute name="MajorVersionLimit" type="IntNonNegative" use="optional" />
    <xs:attribute name="MajorWithMinorVersionsLimit" type="IntNonNegative" use="optional" />
    <xs:attribute name="ModeratedList" type="TRUEFALSE" default="FALSE" />
```

```
      <xs:attribute name="MultipleMtgDataList" type="TRUEFALSE" default="TRUE" />
      <xs:attribute name="MustSaveRootFiles" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="Name" type="xs:string" />
      <xs:attribute name="NewPage" type="xs:string" />
      <xs:attribute name="NoCrawl" type="TRUEFALSE" default="FALSE"  />
      <xs:attribute name="OnQuickLaunch" type="TRUEFALSE" />
      <xs:attribute name="OrderedList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="Path" type="xs:string " />
      <xs:attribute name="PrivateList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="PublicList" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="RootWebOnly" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="SecurityBits" type="xs:string" />
      <xs:attribute name="SetupPath" type="RelativeFilePath" />
      <xs:attribute name="Sequence" type="xs:int" />
      <xs:attribute name="SyncType" type="xs:string" />
      <xs:attribute name="ThumbnailSize" type="IntNonNegative" default="0" />
      <xs:attribute name="Type" type="xs:int" use="required"/>
      <xs:attribute name="Unique" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="UseRootFolderForNavigation" type="TRUEFALSE" />
      <xs:attribute name="VersioningEnabled" type="TRUEFALSE" default="FALSE" />
      <xs:attribute name="WebImageHeight" type="IntNonNegative"   default="0" />
      <xs:attribute name="WebImageWidth" type="IntNonNegative"   default="0" />
  </xs:complexType>

  <xs:complexType name="ListTemplateDefinitions" mixed="true">
    <xs:sequence>
      <xs:element name="ListTemplate" type="ListTemplateDefinition" minOccurs="0"
 maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="LogicalJoinDefinition">
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element name="And" type="ExtendedLogicalJoinDefinition" />
      <xs:element name="BeginsWith" type="LogicalTestDefinition" />
      <xs:element name="Contains" type="LogicalTestDefinition" />
      <xs:element name="DateRangesOverlap" type="LogicalTestDefinitionDateRange" />
      <xs:element name="Eq" type="LogicalTestDefinition" />
      <xs:element name="Geq" type="LogicalTestDefinition" />
      <xs:element name="Gt" type="LogicalTestDefinition" />
      <xs:element name="In" type="LogicalTestInValuesDefinition" />
      <xs:element name="Includes" type="LogicalTestDefinition" />
      <xs:element name="IsNotNull" type="LogicalNullDefinition" />
      <xs:element name="IsNull" type="LogicalNullDefinition" />
      <xs:element name="Leq" type="LogicalTestDefinition" />
      <xs:element name="Lt" type="LogicalTestDefinition" />
      <xs:element name="Membership" type="MembershipDefinition" />
      <xs:element name="Neq" type="LogicalTestDefinition" />
      <xs:element name="NotIncludes" type="LogicalTestDefinition" />
      <xs:element name="Or" type="ExtendedLogicalJoinDefinition" />
    </xs:choice>
  </xs:complexType>

  <xs:complexType name="LogicalNullDefinition">
    <xs:all>
      <xs:element name="FieldRef" type="FieldRefDefinitionQueryNull" minOccurs="1"
 maxOccurs="1" />
    </xs:all>
  </xs:complexType>
```

```
<xs:complexType name="LogicalTestDefinition">
  <xs:all>
    <xs:element name="FieldRef" type="FieldRefDefinitionQueryTest" minOccurs="1"
maxOccurs="1" />
    <xs:element name="Value" type="ValueDefinition" minOccurs="1" maxOccurs="1" />
  </xs:all>
</xs:complexType>

<xs:complexType name="LogicalTestDefinitionDateRange">
  <xs:sequence>
    <xs:element name="FieldRef" type="FieldRefDefinitionQueryDate" minOccurs="2"
maxOccurs="3" />
    <xs:element name="Value" type="ValueDefinitionDateRange" minOccurs="1" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="MAPPINGDEFINITION">
  <xs:simpleContent>
    <xs:extension base="xs:string">
      <xs:attribute name="Value" type="xs:string" />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>

<xs:complexType name="MAPPINGDEFINITIONS">
  <xs:sequence>
    <xs:element name="MAPPING" type="MAPPINGDEFINITION" minOccurs="0" maxOccurs="unbounded"
/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="MembershipDefinition">
  <xs:complexContent>
    <xs:extension base="LogicalNullDefinition">
      <xs:attribute name="Type" type="xs:string" use="optional" />
      <xs:attribute name="ID" type="xs:integer" use="optional" />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="MobileViewDefinition">
  <xs:attribute name="MobileSimpleViewField" type="xs:string" use="required" />
  <xs:attribute name="MobileItemLimit" type="xs:string" use="required" />
</xs:complexType>

<xs:complexType name="OrderByDefinition">
  <xs:sequence>
    <xs:element name="FieldRef" type="FieldRefDefinitionOrderBy" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Override" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
default="FALSE"/>
</xs:complexType>

<xs:complexType name="RowLimitDefinition">
  <xs:simpleContent>
    <xs:extension base="xs:int">
```

```xml
        <xs:attribute name="Paged" type="TRUE_Case_Insensitive_Else_Anything" use="optional"
  default="FALSE"/>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>

  <xs:complexType name="ToolbarDefinition">
    <xs:sequence>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any" processContents="skip" />
    </xs:sequence>
    <xs:attribute name="Position" type="ToolbarPosition" />
    <xs:attribute name="Type" type="ToolbarType" />
    <xs:anyAttribute processContents="skip" />
  </xs:complexType>

  <xs:complexType name="ValueDefinition" mixed="true">
    <xs:sequence>
      <xs:choice minOccurs="0" maxOccurs="unbounded">
        <xs:any namespace="##any" processContents="skip" />
      </xs:choice>
    </xs:sequence>
    <xs:attribute name="Type" type="xs:string" use="optional" />
  </xs:complexType>

  <xs:complexType name="ValueDefinitionDateRange" mixed="true">
    <xs:sequence>
      <xs:choice minOccurs="0" maxOccurs="1">
        <xs:element name="Month">
          <xs:complexType />
        </xs:element>
        <xs:element name="Now">
          <xs:complexType />
        </xs:element>
        <xs:element name="Today">
          <xs:complexType />
        </xs:element>
        <xs:element name="Week">
          <xs:complexType />
        </xs:element>
      </xs:choice>
    </xs:sequence>
    <xs:attribute name="Type" type="xs:string" use="optional" />
    <xs:attribute name="IncludeTimeValue" type="TRUEFALSE" use="optional" />
    <xs:attribute name="StorageTZ" type="TRUEFALSE" use="optional" />
  </xs:complexType>

  <xs:complexType name="ViewDefinition">
    <xs:group ref="ViewDefinitionChildElementGroup"/>
    <xs:attribute name="AggregateView" type="TRUEFALSE"  default="FALSE"/>
    <xs:attribute name="BaseViewID" type="xs:int" />
    <xs:attribute name="CssStyleSheet" type="xs:string" />
    <xs:attribute name="DefaultView" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="DisplayName" type="xs:string" />
    <xs:attribute name="FailIfEmpty" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="FileDialog" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="FPModified" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="Hidden" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="List" type="UniqueIdentifierWithoutBraces" />
    <xs:attribute name="Name" type="UniqueIdentifierWithBraces" />
```

```xml
    <xs:attribute name="ContentTypeID" type="ContentTypeId" />
    <xs:attribute name="OrderedView" type="TRUEFALSE" />
    <xs:attribute name="DefaultViewForContentType" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="IncludeRootFolder" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="PageType" type="xs:string" />
    <xs:attribute name="Path" type="RelativeFilePath" />
    <xs:attribute name="Personal" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="ReadOnly" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="RecurrenceRowset" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="RequiresClientIntegration" type="TRUEFALSE" default="FALSE"/>
    <xs:attribute name="RowLimit" type="xs:int" />
    <xs:attribute name="ShowHeaderUI" type="TRUEFALSE"  default="FALSE" />
    <xs:attribute name="Type" type="ViewType" default="HTML"/>
    <xs:attribute name="Url" type="RelativeUrl" />
    <xs:attribute name="UseSchemaXmlToolbar" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="WebPartOrder" type="xs:int" />
    <xs:attribute name="WebPartZoneID" type="xs:string" />
    <xs:attribute name="FreeForm" type="TRUEFALSE" />
    <xs:attribute name="ImageUrl" type="xs:string" />
    <xs:attribute name="SetupPath" type="RelativeFilePath" />
    <xs:attribute name="ToolbarTemplate" type="xs:string" />
    <xs:attribute name="MobileView" type="TRUEFALSE" default="FALSE"/>
    <xs:attribute name="MobileDefaultView" type="TRUEFALSE" />
    <xs:attribute name="MobileUrl" type="RelativeUrl" />
    <xs:attribute name="Level" type="ViewPageLevel" default="1" />
    <xs:attribute name="FrameState" type="xs:string" default="Normal" />
    <xs:attribute name="IsIncluded" type="TRUEFALSE" default="TRUE" />
    <xs:attribute name="IncludeVersions" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="HackLockWeb" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="ModerationType" type="ViewModerationType" default="" />
    <xs:attribute name="Scope" type="ViewScope" default="" />
    <xs:attribute name="Threaded" type="TRUEFALSE" default="FALSE" />
    <xs:attribute name="TabularView" type="FALSE_Case_Insensitive_Else_Anything"
default="TRUE" />
  </xs:complexType>

  <xs:group name="ViewDefinitionChildElementGroup">
    <xs:all>
      <xs:element name="PagedRowset" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="Toolbar" type="ToolbarDefinition"  minOccurs="0" maxOccurs="1" />
      <xs:element name="Query" type="CamlQueryRoot" minOccurs="0" maxOccurs="1" />
      <xs:element name="ViewFields" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="FieldRef" type="FieldRefDefinitionView" minOccurs="0"
maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GroupByHeader" minOccurs="0" maxOccurs="1">
        <xs:complexType>
```

```xml
                <xs:sequence>
                  <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
              </xs:sequence>
              <xs:anyAttribute processContents="skip" />
            </xs:complexType>
        </xs:element>
        <xs:element name="GroupByFooter" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ViewHeader" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ViewBody" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ViewFooter" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="RowLimitExceeded" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ViewEmpty" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
```

```
          </xs:complexType>
        </xs:element>
        <xs:element name="PagedRecurrenceRowset" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="PagedClientCallbackRowset" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="Aggregations" type="AggregationsDefinition" minOccurs="0"
maxOccurs="1" />
        <xs:element name="OpenApplicationExtension" type="xs:string" minOccurs="0"
maxOccurs="1" />
        <xs:element name="RowLimit" type="RowLimitDefinition" minOccurs="0" maxOccurs="1"
default="2147483647" />
        <xs:element name="Mobile" type="MobileViewDefinition" minOccurs="0" maxOccurs="1" />
        <xs:element name="ViewStyle" type="ViewStyleReference" minOccurs="0" maxOccurs="1" />
        <xs:element name="CalendarSettings" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="CalendarViewStyles" type="CalendarViewStylesDefinition" minOccurs="0"
maxOccurs="1" />
        <xs:element name="ViewBidiHeader" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="Script" minOccurs="0" maxOccurs="1" mixed="true">
          <xs:complexType>
            <xs:sequence>
              <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
            </xs:sequence>
            <xs:anyAttribute processContents="skip" />
          </xs:complexType>
        </xs:element>
        <xs:element name="ViewData" minOccurs="0" maxOccurs="1">
          <xs:complexType>
            <xs:sequence>
```

```
            <xs:element name="FieldRef" type="FieldRefDefinitionViewData" minOccurs="3"
maxOccurs="5" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Formats" type="ViewFormatDefinitions" minOccurs="0" maxOccurs="1" />
      <xs:element name="InlineEdit" type="TRUE_If_Present" minOccurs="0" maxOccurs="1" />
      <xs:element name="ProjectedFields" type="ProjectedFieldsDefinitionType" minOccurs="0"
maxOccurs="1" />
      <xs:element name="Joins" type="ListJoinsDefinitionType" minOccurs="0" maxOccurs="1" />
      <xs:element name="Method" type="ViewMethodDefinition" minOccurs="0" maxOccurs="1" />
      <xs:element name="ParameterBindings" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="Xsl" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="XslLink" minOccurs="0" maxOccurs="1" mixed="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="JS" minOccurs="0" maxOccurs="1" mixed="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>
      <xs:element name="JSLink" minOccurs="0" maxOccurs="1" mixed="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##any"
processContents="skip" />
          </xs:sequence>
          <xs:anyAttribute processContents="skip" />
        </xs:complexType>
      </xs:element>

    </xs:all>
  </xs:group>
```

```
  <xs:complexType name="ViewDefinitions">
    <xs:sequence>
      <xs:element name="View" type="ViewDefinition" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="ViewFormatDefinitions">
    <xs:sequence>
      <xs:element name="FormatDef" type="FormatDefDefinition" minOccurs="0"
maxOccurs="unbounded" />
      <xs:element name="Format" type="FormatDefinition"  minOccurs="0" maxOccurs="unbounded"
/>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="ViewStyleReference">
    <xs:attribute name="ID" type="xs:int"  use="optional" />
  </xs:complexType>

  <xs:complexType name="XmlDocumentDefinition" mixed="true">
    <xs:complexContent>
      <xs:restriction base="xs:anyType">
        <xs:sequence>
          <xs:any namespace="##other" minOccurs="0" maxOccurs="unbounded"
processContents="skip" />
        </xs:sequence>
        <xs:attribute name="NamespaceURI" type="xs:string" use="required" />
      </xs:restriction>
    </xs:complexContent>
  </xs:complexType>

  <xs:complexType name="XmlDocumentDefinitionCollection">
    <xs:sequence>
      <xs:element name="XmlDocument" type="XmlDocumentDefinition" minOccurs="0"
maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

<xs:element name="customXsn">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="xsnLocation" type="xs:string" />
      <xs:element name="cached" type="xs:boolean" />
      <xs:element name="openByDefault" type="xs:boolean" />
      <xs:element name="xsnScope" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:complexType name="policy">
  <xs:sequence>
    <xs:element name="Name" type="xs:string" />
    <xs:element name="Description" type="xs:string" minOccurs="0" />
    <xs:element name="Statement" type="xs:string" minOccurs="0" />
    <xs:element name="PolicyItems" minOccurs="0" >
      <xs:complexType>
        <xs:sequence>
```

```xml
            <xs:element name="PolicyItem" type="policyItem" minOccurs="0" maxOccurs="unbounded"
  />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="id" type="UniqueIdentifierWithoutBracesOrEmpty" use="required" />
  <xs:attribute name="local" type="xs:boolean" use="required" />
</xs:complexType>

<xs:complexType name="PolicyDirtyBag">
  <xs:sequence minOccurs="0" maxOccurs="1">
    <xs:any namespace="##other" minOccurs="0" maxOccurs="unbounded" processContents="skip" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="PolicyFeatureOperation">
  <xs:attribute name="op" type="xs:string" use="required" />
</xs:complexType>

<xs:complexType name="policyItem">
  <xs:sequence>
    <xs:element name="Name" type="xs:string" />
    <xs:element name="Statement" type="xs:string" minOccurs="0" />
    <xs:element name="Description" type="xs:string" minOccurs="0" />
    <xs:element name="CustomData" type="customData" minOccurs="0" />
  </xs:sequence>
  <xs:attribute name="featureId" type="xs:string" use="required" />
  <xs:attribute name="BlockPreview" type="xs:boolean" />
  <xs:attribute name="UniqueId" type="xs:string" />
</xs:complexType>

<xs:complexType name="customData">
  <xs:sequence>
    <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="barcode">
  <xs:sequence>
    <xs:element name="event" type="PolicyEventDefinition" minOccurs="0" maxOccurs="unbounded"
  />
  </xs:sequence>
</xs:complexType>

  <xs:complexType name="label">
    <xs:sequence>
      <xs:element name="properties" minOccurs="0">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="width" type="xs:decimal" minOccurs="0" />
            <xs:element name="height" type="xs:decimal" minOccurs="0" />
            <xs:element name="justification" type="xs:string" minOccurs="0" />
            <xs:element name="fontstyle" type="xs:string" minOccurs="0" />
            <xs:element name="font" type="xs:string" minOccurs="0" />
            <xs:element name="fontsize" type="xs:int" minOccurs="0" />
            <xs:element name="lock" type="xs:boolean" minOccurs="0" />
          </xs:sequence>
        </xs:complexType>
```

```
      </xs:element>
      <xs:element name="event" type="PolicyEventDefinition" minOccurs="0"
 maxOccurs="unbounded" />
      <xs:element name="segment" type="PolicySegmentDefinition" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="audit">
    <xs:all>
      <xs:element name="Update" minOccurs="0" />
      <xs:element name="View" minOccurs="0" />
      <xs:element name="CheckInOut" minOccurs="0" />
      <xs:element name="MoveCopy" minOccurs="0" />
      <xs:element name="DeleteRestore" minOccurs="0" />
    </xs:all>
  </xs:complexType>

 <xs:complexType name="PolicyEventDefinition">
   <xs:attribute name="type" type="xs:string" use="required" />
 </xs:complexType>

 <xs:complexType name="PolicySegmentDefinition">
   <xs:attribute name="type" type="xs:string" use="required" />
 </xs:complexType>

 <xs:complexType name="PolicyFormulaDefinition">
   <xs:sequence>
     <xs:element name="number" type="xs:int" />
     <xs:element name="property" type="xs:string" />
     <xs:element name="propertyId" type="xs:string" />
     <xs:element name="period" type="xs:string" />
   </xs:sequence>
   <xs:attribute name="id" type="xs:string" />
 </xs:complexType>

 <xs:complexType name="PolicyActionDefinition">
   <xs:attribute name="type" type="xs:string" />
   <xs:attribute name="id" type="xs:string" use="required"/>
   <xs:attribute name="destnExplanation" type="xs:string" />
   <xs:attribute name="destnName" type="xs:string" />
   <xs:attribute name="destnUrl" type="xs:string" />
   <xs:attribute name="destnId" type="xs:string" />
 </xs:complexType>

 <xs:complexType name="ReceiverDefinitions">
   <xs:sequence>
     <xs:element name="Receiver" type="ReceiverDefinition" minOccurs="0" maxOccurs="unbounded"
/>
   </xs:sequence>
   <xs:attribute name="ListTemplateId" type="xs:int" />
   <xs:attribute name="ListUrl" type="xs:string" />
   <xs:attribute name="ListTemplateOwner" type="xs:string" />
   <xs:attribute name="Scope" type="xs:string" />
 </xs:complexType>

 <xs:complexType name="ReceiverDefinition">
   <xs:all>
     <xs:element name="Name" type="String255Chars" minOccurs="1" maxOccurs="1" />
     <xs:element name="Synchronization" type="xs:string" minOccurs="0" maxOccurs="1" />
```

```xml
        <xs:element name="Type" type="xs:integer" minOccurs="1" maxOccurs="1" />
        <xs:element name="SequenceNumber" type="xs:integer" minOccurs="1" maxOccurs="1" />
        <xs:element name="Assembly" type="AssemblyStrongName" minOccurs="1" maxOccurs="1" />
        <xs:element name="Class" type="AssemblyClass" minOccurs="1" maxOccurs="1" />
        <xs:element name="Data" type="String255Chars" minOccurs="0" maxOccurs="1" />
    </xs:all>
  </xs:complexType>

  <xs:complexType name="ValueDefinitionCollection">
    <xs:sequence>
      <xs:element name="Value" type="ValueDefinition" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="LogicalTestInValuesDefinition">
    <xs:all>
      <xs:element name="FieldRef" type="FieldRefDefinitionQueryTest" minOccurs="1"
maxOccurs="1" />
      <xs:element name="Values" type="ValueDefinitionCollection" minOccurs="1" maxOccurs="1"
/>
    </xs:all>
  </xs:complexType>

  <xs:complexType name="ProjectedFieldsDefinitionType">
    <xs:sequence>
      <xs:element name="Field" type="ProjectedFieldDefinitionType" minOccurs="1"
maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="ProjectedFieldDefinitionType">
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="ShowField" type="xs:string" use="required" />
    <xs:attribute name="Type" type="xs:string" use="required" fixed="Lookup" />
    <xs:attribute name="List" type="xs:string" />
    <xs:attribute name="FieldRef" type="xs:string" />
  </xs:complexType>

  <xs:complexType name="ListJoinsDefinitionType">
    <xs:sequence>
      <xs:element name="Join" type="ListJoinDefinitionType" minOccurs="1"
maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="ListJoinDefinitionType">
    <xs:choice>
      <xs:element name="Eq" type="ListJoinConditionDefinitionType" />
    </xs:choice>
    <xs:attribute name="Type" type="ListJoinJoinType" default="LEFT" />
    <xs:attribute name="ListAlias" type="xs:string" />
  </xs:complexType>

  <xs:complexType name="ListJoinConditionDefinitionType">
    <xs:sequence>
      <xs:element name="FieldRef" minOccurs="2" maxOccurs="2" />
    </xs:sequence>
  </xs:complexType>
```

```
<xs:complexType name="ListJoinConditionSourceFieldDefinitionType">
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="RefType" type="xs:string" use="required" fixed="Id" />
  <xs:attribute name="List" type="xs:string" />
</xs:complexType>

<xs:complexType name="ListJoinConditionTargetFieldDefinitionType">
  <xs:attribute name="Name" type="xs:string" use="required" fixed="Id" />
  <xs:attribute name="List" type="xs:string" use="required" />
</xs:complexType>

<xs:simpleType name="ListJoinJoinType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="LEFT" />
    <xs:enumeration value="INNER" />
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="LogicalWithIndexDefinition">
  <xs:choice minOccurs="1" maxOccurs="1">
    <xs:element name="And" type="ExtendedLogicalJoinDefinitionWithIndex" />
    <xs:element name="Eq" type="LogicalTestDefinition" />
  </xs:choice>
  <xs:attribute name="ID" type="UniqueIdentifierWithOrWithoutBraces" use="required" />
</xs:complexType>

<xs:complexType name="ExtendedLogicalJoinDefinitionWithIndex">
  <xs:choice>
    <xs:sequence>
      <xs:element name="Eq" type="LogicalTestDefinition" />
      <xs:choice minOccurs="1" maxOccurs="1">
        <xs:element name="Geq" type="LogicalTestDefinition" />
        <xs:element name="Gt" type="LogicalTestDefinition" />
        <xs:element name="Eq" type="LogicalTestDefinition" />
        <xs:element name="In" type="LogicalTestInValuesDefinition" />
        <xs:element name="Leq" type="LogicalTestDefinition" />
        <xs:element name="Lt" type="LogicalTestDefinition" />
      </xs:choice>
    </xs:sequence>
    <xs:sequence>
      <xs:choice minOccurs="1" maxOccurs="1">
        <xs:element name="Geq" type="LogicalTestDefinition" />
        <xs:element name="Gt" type="LogicalTestDefinition" />
        <xs:element name="In" type="LogicalTestInValuesDefinition" />
        <xs:element name="Leq" type="LogicalTestDefinition" />
        <xs:element name="Lt" type="LogicalTestDefinition" />
      </xs:choice>
      <xs:element name="Eq" type="LogicalTestDefinition" />
    </xs:sequence>
  </xs:choice>
</xs:complexType>

<xs:complexType name="FormTemplateDefinitions" mixed="true">
  <xs:sequence>
    <xs:element name="Display" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="Edit" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="New" type="xs:string" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>
```

```xml
<xs:complexType name="FormUrlDefinitions">
  <xs:sequence>
    <xs:element name="Display" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="Edit" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="New" type="xs:string" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="NamespaceDefinition" mixed="true">
  <xs:attribute name="prefix" type="xs:string" use="required" />
  <xs:attribute name="value" type="xs:string" use="required" />
</xs:complexType>

<xs:complexType name="NamespaceDefinitions" mixed="true">
  <xs:sequence>
    <xs:element name="Namespace" type="NamespaceDefinition" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="Schedules">
  <xs:sequence>
    <xs:element name="Schedule" type="PolicyScheduleDefinition" minOccurs="1" />
  </xs:sequence>
  <xs:attribute name="nextStageId" type="xs:int" use="required" />
</xs:complexType>

<xs:complexType name="PolicyScheduleDefinition">
  <xs:sequence>
    <xs:element name="stages">
      <xs:complexType>
        <xs:sequence>
          <xs:element maxOccurs="unbounded" name="data" type="PolicyDataDefinition" />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="type" type="xs:string" use="required" />
</xs:complexType>

<xs:complexType name="PolicyDataDefinition">
  <xs:sequence>
    <xs:element name="formula" type="PolicyFormulaDefinition" />
    <xs:element name="action" type="PolicyActionDefinition" />
  </xs:sequence>
  <xs:attribute name="stageId" type="xs:int" use="required" />
  <xs:attribute name="recur" type="xs:boolean" use="optional" />
  <xs:attribute name="offset" type="xs:int" use="optional" />
  <xs:attribute name="unit" type="xs:string" use="optional" />
  <xs:attribute name="stageDeleted" type="xs:boolean" use="optional" />
</xs:complexType>

<xs:complexType name="ViewMethodDefinition">
  <xs:sequence>
    <xs:element name="Filter" type="ViewFilterDefinition" minOccurs="0"
maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string" use="required"/>
```

```
    </xs:complexType>
    <xs:complexType name="ViewFilterDefinition">
      <xs:attribute name="Name" type="xs:string" />
      <xs:attribute name="Value" type="xs:string" />
    </xs:complexType>

  </xs:schema>
```

6 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs:

- The 2007 Microsoft Office system

- Microsoft Office 2010 suites

- Microsoft Office 2013

- Microsoft SharePoint Foundation 2010

- Windows SharePoint Services 3.0

- Microsoft SharePoint Foundation 2013

- Windows 8.1 Update

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms SHOULD or SHOULD NOT implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term MAY implies that the product does not follow the prescription.

<1> Section 2.1.17: This type is available only in SharePoint Foundation 2013.

<2> Section 2.3.2.6.2: Windows SharePoint Services 3.0 does not include the URL attribute if the list is being exported from an external site.

<3> Section 2.3.2.13.2: This attribute has been deprecated in Windows SharePoint Services 3.0. For future compatibility, it is recommended that **DocumentTemplate** be written as an empty value.

<4> Section 2.3.2.17.3: This element is available only in SharePoint Foundation 2013.

<5> Section 2.3.2.17.3: This element is available only in SharePoint Foundation 2013.

<6> Section 2.5.1.9.2: The 2007 Office system, Office 2010, SharePoint Foundation 2010, Windows SharePoint Services 3.0, and SharePoint Foundation 2013 all enable policies to be defined for a site collection.

<7> Section 2.5.1.10.3: Office SharePoint Server 2007 uses the **data** element. SharePoint Server 2010 uses either the **data** element or the **Schedules** child elements.

<8> Section 2.5.1.11.3: The implementations in Office SharePoint Server 2007 and SharePoint Server 2010 prompt the user to insert a barcode into the document when the specified event occurs.

<9> Section 2.5.1.13.3: The 2007 Office system, Office 2010, SharePoint Foundation 2010, Windows SharePoint Services 3.0, and SharePoint Foundation 2013 all prompt the user to insert a label into the document when the specified event occurs.

<10> Section 2.5.1.19.2: This value is obsolete for SharePoint Server 2010, but was valid for Office SharePoint Server 2007.

<11> Section 2.5.1.20.2: Office SharePoint Server 2007, SharePoint Server 2010 and SharePoint Server 2013 maintain a list of locations to transfer the file. Each location has a GUID identifier, a name, and a URL.

7   Change Tracking

This section identifies changes that were made to the [MS-WSSCAML] protocol document between the April 2014 and July 2014 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

▪ A document revision that incorporates changes to interoperability requirements or functionality.

▪ The removal of a document from the documentation set.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

Major and minor changes can be described further using the following change types:

▪ New content added.

▪ Content updated.

▪ Content removed.

▪ New product behavior note added.

▪ Product behavior note updated.

▪ Product behavior note removed.

▪ New protocol syntax added.

▪ Protocol syntax updated.

▪ Protocol syntax removed.

▪ New content added due to protocol revision.

▪ Content updated due to protocol revision.

▪ Content removed due to protocol revision.

▪ New protocol syntax added due to protocol revision.

▪ Protocol syntax updated due to protocol revision.

▪ Protocol syntax removed due to protocol revision.

- Obsolete document removed.

Editorial changes are always classified with the change type **Editorially updated.**

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact dochelp@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
2.3.1.9 ViewModerationType	Added the empty value's description in the table for ViewModerationType type.	N	Content updated.
2.3.2.17.1 Schema	Added the JS and JSLink elements into the schema.	N	Content updated.
2.3.2.17.1 Schema	Added the "mixed" value for Script and XslLink elements.	N	Content updated.
2.3.2.17.3 Child Elements	Added description and note for the JS and JSLink elements.	N	Content updated.
2.4.9.1 Schema	Updated the schema for the ContentTypeDefinitionTP complexType.	N	Content updated.
2.5.1.7.3 Child Elements	Updated the schema of the PolicyDirtyBag element.	N	Content updated.
5 Appendix A: Full XML Schema	Added the JS and JSLink elements into the schema.	N	Content updated.
5 Appendix A: Full XML Schema	Added the "mixed" value for Script and XslLink elements.	N	Content updated.
5 Appendix A: Full XML Schema	Updated the schema for the ContentTypeDefinitionTP complexType.	N	Content updated.

8 Index